

## **Appendix A** Resources Evaluated Relative to the Requirements of Section 4(f)

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## A.1 Introduction

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by the California Department of Transportation (Caltrans) under its assumption of responsibility pursuant to 23 United States Code (U.S.C.) 327.

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C. 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreational lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that the Secretary [of Transportation] may approve a transportation project requiring the use of publicly owned land of a public park, recreational area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, State, or local officials having jurisdiction over the park, refuge, or site) only if:

1. There is no prudent and feasible alternative to using that land; and
2. The project includes all possible planning to minimize harm to the park, recreational area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) further requires consultation with the United States Department of the Interior (DOI) and, as appropriate, the United States Department of Agriculture, and the Department of Housing and Urban Development in developing transportation projects that use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer (SHPO) is also needed.

This appendix provides an evaluation of whether the proposed Interstate 405 (I-405) Improvement Project (Interstate 5 [I-5] to State Route 55 [SR-55]) (project) would trigger the requirements for protection under Section 4(f) for any publicly owned parks, recreational facilities, wildlife refuges, and/or National Register of Historic Places (NRHP) listed or eligible historic properties. Potential Section 4(f) resources would not require protections if one or more of the following apply:

1. They are not publicly owned.
2. They are not open to the public.

3. They are not eligible historic properties.
4. The project does not permanently or temporarily use the property and does not hinder preservation of the property.
5. The proximity impacts do not result in constructive use.

#### **A.1.1 Section 4(f) “Use”**

Regulations interpreting Section 4(f) state that “the potential use of land from a Section 4(f) property shall be evaluated as early as practicable in the development of the action when alternatives to the proposed action are under study (23 *Code of Federal Regulations* [CFR] 774.9(a)).” The use of Section 4(f) resources occurs when:

- Land from a Section 4(f) site is directly incorporated into a transportation facility (i.e., “direct use”);
- There is a temporary occupancy of Section 4(f) land that is adverse in terms of the statute’s preservation purpose (i.e., “temporary use”); or
- When the indirect impacts of the transportation project on the Section 4(f) site, without acquisition of land, are so great that the purposes for which the Section 4(f) site exists are substantially impaired (i.e., “constructive use”).

#### ***Direct Use***

A direct use of a Section 4(f) resource takes place when property is directly incorporated into a transportation facility (23 CFR Section 774.17). This may occur as a result of partial or full acquisition of a fee simple interest, direct easements, or temporary easements that exceed regulatory limits noted below.

#### ***Temporary Occupancy***

A temporary occupancy of a Section 4(f) resource is considered a “use” when it is adverse in terms of the preservationist purposes of the Section 4(f) statute; however, under Federal Highway Administration (FHWA) regulations (23 CFR Section 774.13[d]), a temporary occupancy of property does not constitute a use of a Section 4(f) resource when the following conditions are satisfied:

- The occupancy must be of temporary duration (i.e., shorter than the period of construction of the project) and not involve a change in ownership of the property.
- The scope of the work must be minor, with only minimal changes to the Section 4(f) property.
- There are no direct adverse physical impacts or interference with the protected activities, features, or attributes of the property.

- The property being used must be fully restored to a condition that is at least as good as that which existed prior to the project.
- There must be documented agreement of the appropriate official having jurisdiction over the resource regarding the above conditions.

### ***Constructive Use***

A constructive use of a Section 4(f) resource occurs when a transportation project does not directly incorporate land from the resource, but the proximity of the project results in impacts (i.e., noise, vibration, visual, access, and/or ecological impacts) so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired (i.e., “constructive use”).

### ***De Minimis Impact***

Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) amended Section 4(f) legislation at 23 U.S.C. 138 and 49 U.S.C. 303 to simplify the processing and approval of projects that have only *de minimis* impacts on lands protected by Section 4(f). This revision provides that once the U.S. Department of Transportation (USDOT) determines that a transportation use of Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a *de minimis* impact on that property, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete. FHWA’s final rule on Section 4(f) *de minimis* findings is codified in 23 CFR 774.3 and CFR 774.17.

A *de minimis* impact to a Section 4(f) resource is a nominal impact that would not be adverse. *De minimis* impacts to historic resources under Section 4(f) would be either no impact to the property or a “no adverse effect” finding under 36 CFR Part 800. For other Section 4(f) protected resources, including publicly owned parks, recreation areas, and wildlife and waterfowl refuges, *de minimis* impacts would be defined as those that do not adversely affect the activities, features, or attributes of the Section 4(f) resource. To reach a *de minimis* impact finding, the official(s) with jurisdiction over the Section 4(f) resource must provide written concurrence that the project would not adversely affect the activities, features, or attributes that qualify the property for protection under Section 4(f). The public must be afforded the opportunity to review and comment on the effects of the project on the identified Section 4(f) resource(s).

Responsibility for compliance with Section 4(f) has been assigned to Caltrans pursuant to 23 U.S.C. 326 and 327, including determinations and approval of Section 4(f)

evaluations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

## **A.2 Description of the Proposed Project**

Caltrans, in cooperation with the Orange County Transportation Authority (OCTA) as the funding agency, proposes the I-405 Improvement Project from post mile (PM) 0.2 at I-5 to PM 8.7 at SR-55. The approximately 8.5-mile-long project is located primarily in the city of Irvine and portions of the both the city of Costa Mesa and unincorporated Orange County. Figure 1 provides a regional vicinity map for the project. Caltrans is the lead agency for both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), as assigned by FHWA. OCTA is the project sponsor.

## **A.3 Resources Evaluated Relative to the Requirements of Section 4(f)**

This section discusses parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection because either (1) they are not publicly owned, (2) they are not open to the public, (3) they are not eligible historic properties, (4) the project does not permanently use the property and does not hinder preservation of the property, or (5) the proximity impacts do not result in constructive use.

There are 25 properties within 0.5 mile of the project corridor that qualify as Section 4(f) resources, including 19 parks and recreational facilities with publicly accessible features (i.e., golf courses, hiking and biking trails), 5 schools with publicly accessible facilities, 1 wildlife and waterfowl refuge site, and no NRHP listed or determined eligible sites. Of these Section 4(f) properties, only William R. Mason Regional Park is also identified as a Section 6(f) resource. A summary of the number of identified resources is provided in Table 1.

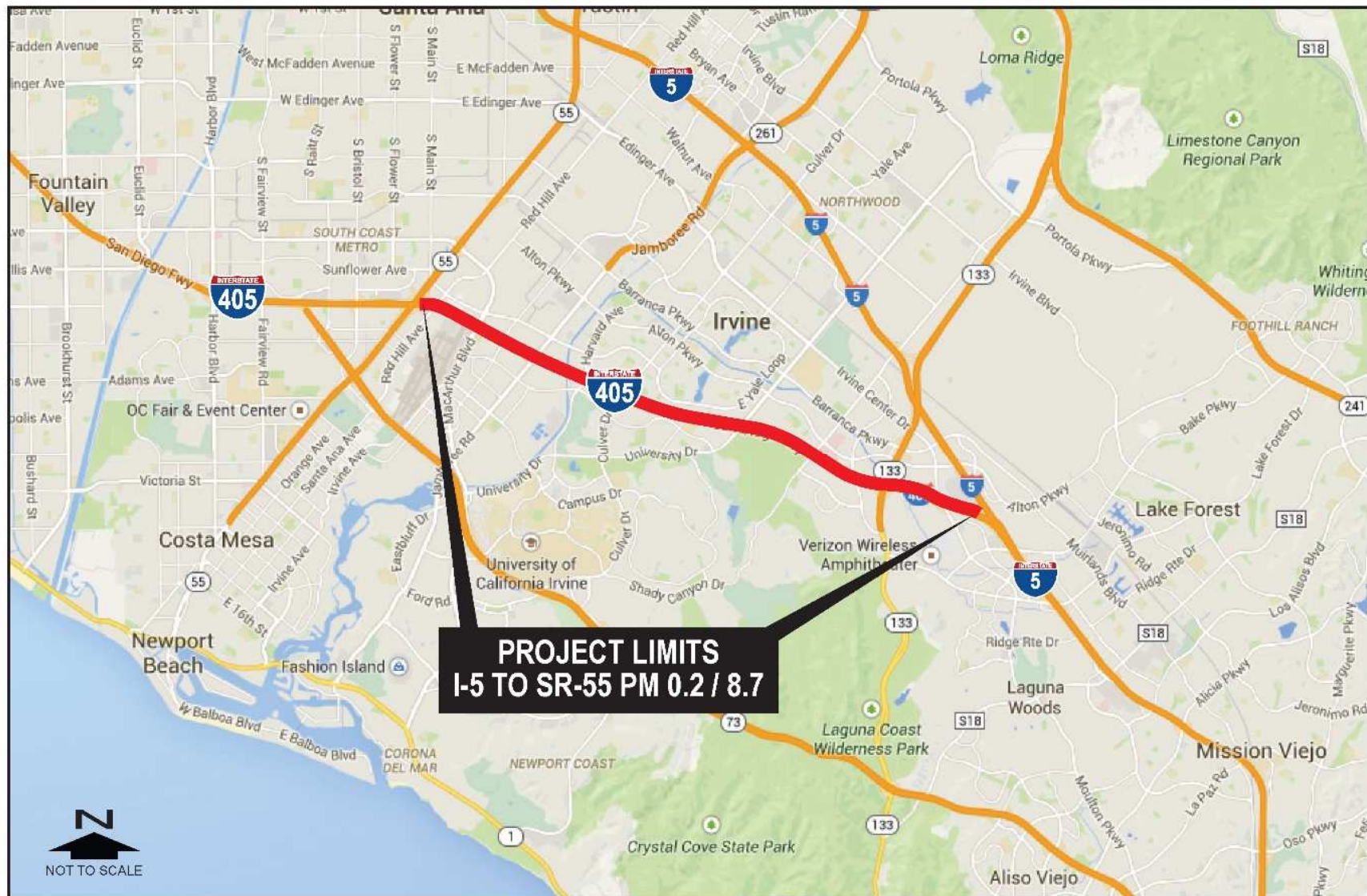


Figure 1. Project Vicinity Map

**Table 1: Summary of Resources Evaluated Relative to the  
Requirements of Section 4(f)**

Type of Property	Geographic Location to Project	Number of Properties Identified
Public Parks and Recreational Areas	Within 0.5 mile	19
Public Schools	Within 0.5 mile	5
Historic and Archaeological Properties	Within 0.5 mile	0
Wildlife and Waterfowl Refuges	Within 0.5 mile	1

*Source: Parsons, 2017.*

### **A.3.1 School Facilities within the Study Area**

Twenty-five (25) publicly owned lands that contain parks and recreational areas are within 0.5 mile of the project corridor. Of these 25 properties, 5 are public schools with outdoor playgrounds and other recreational facilities, which do not restrict access with locked gates. Figure 2 shows all schools within 0.5 mile of the project alignment. As can be seen in Table 2, only 5 of the 11 schools are subject to Section 4(f) because 6 do not have facilities open to the public.

**Table 2: School Facilities within the Study Area**

Map Reference Number	Property Name	APN	Address	Current Ownership	Facilities	Subject to Section 4(f) Protection?	Distance from Project Footprint (miles)
(1)	Westpark Elementary	447-142-07	25 San Carlo, Irvine, CA 92614	Irvine Unified School District	8 acres; playground; large multiuse field; swing sets; child play area	Yes, open to the public	0.49
(2)	Culverdale Elementary	447-231-01	2 Paseo Westpark, Irvine, CA 92614	Irvine Unified School District	9.4 acres; large multiuse field; basketball courts; child play area; soccer fields	Yes, open to the public	0.22
(3)	Westpark Montessori	447-231-19	11 San Leandro, Irvine, CA 92614	Montessori Schools of Irvine	1 acre; playground; child play area	No, private school	0.22
(4)	University Park Elementary	453-023-01	4572 Sandburg Way, Irvine, CA 92612	Irvine Unified School District	10 acres; large multiuse field; baseball diamond; basketball courts; 3 soccer fields	No, not open to the public	0.27
(5)	Meadow Park Elementary	452-181-04	50 Blue Lake S, Irvine, CA 92614	Irvine Unified School District	10 acres; large multiuse field; basketball courts	Yes, open to the public	0.25
(6)	South Lake Middle School	452-181-05	655 W. Yale Loop, Irvine, CA 92614	Irvine Unified School District	8.239 acres; basketball courts; large multiuse field; baseball diamond; basketball courts; soccer fields	Yes, open to the public	0.16
(7)	Rancho San Joaquin Middle School	453-140-02	4861 Michelson Drive, Irvine, CA 92612	Irvine Unified School District	20 acres; basketball courts; tennis courts; baseball diamond; volleyball courts	No, not open to the public	0.00
(8)	Springbrook Elementary	452-401-02	655 Springbrook N, Irvine, CA 92614	Irvine Unified School District	8 acres; large multiuse; soccer fields, handball courts; basketball courts; swing sets; child play area	Yes, open to the public	0.24
(9)	Oak Creek Elementary	466-142-06	1 Dovecreek, Irvine, CA 92618	Irvine Unified School District	10 acres; large multiuse field; soccer fields; basketball courts; handball courts; child play area; swing set	No, not open to the public	0.16
(10)	Alderwood Elementary	481-072-01	2005 Knollcrest, Irvine, CA 92603	Irvine Unified School District	Approximately 13.2 acres; large multiuse fields; basketball courts; handball courts; child play areas	No, not open to the public	0.29
(11)	Cal State Fullerton: Irvine Campus	466-101-14 466-101-15 466-101-16	3 Banting, Irving, CA 92618	California State University	12.3 acres; two large buildings; large parking area	No, no recreational facilities	0.21

Map Reference Numbers are shown in Figure 2.

Source: Parsons, 2017.



APPENDIX A RESOURCES EVALUATED RELATIVE  
TO THE REQUIREMENTS OF SECTION 4(F)

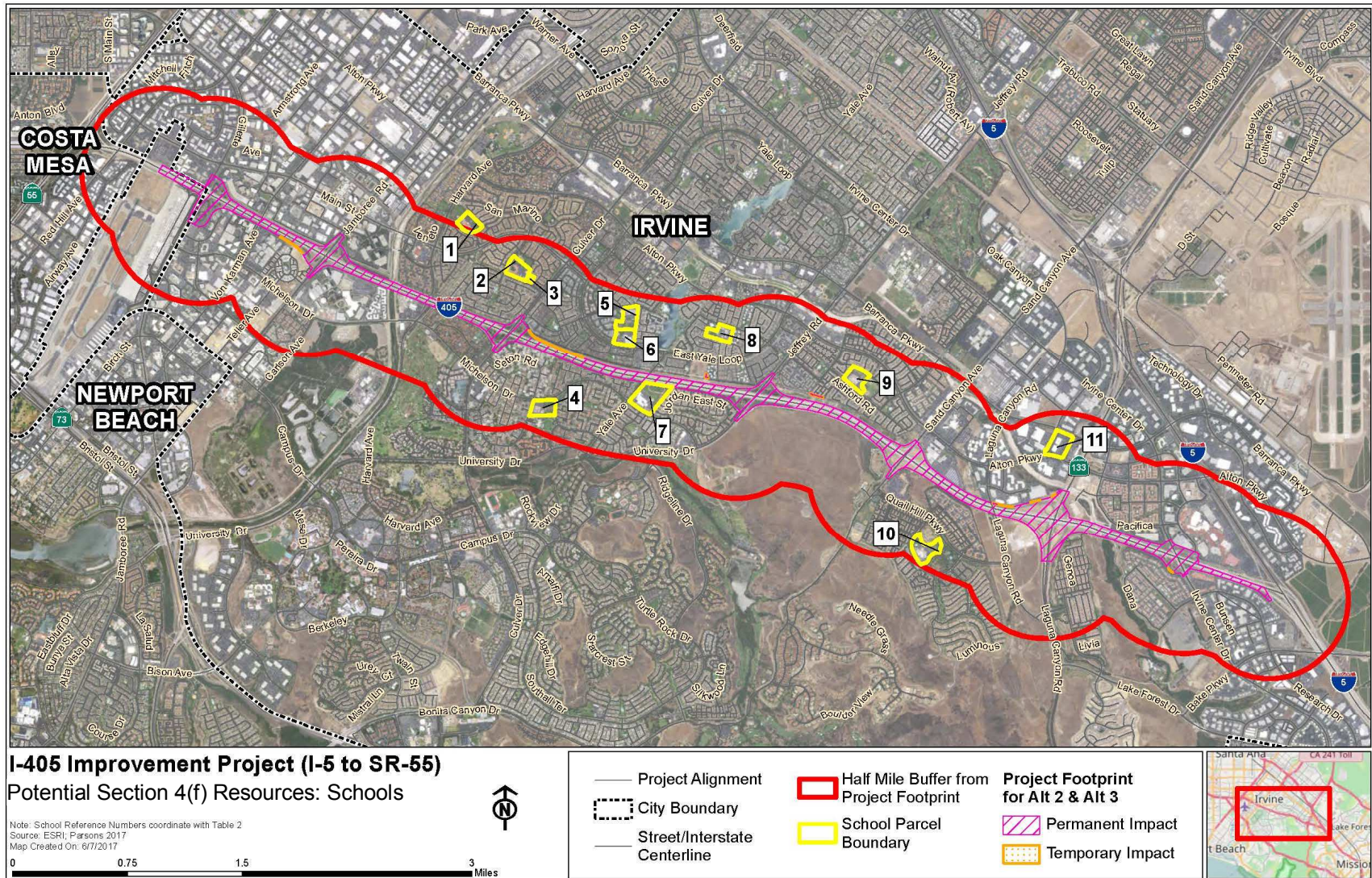


Figure 2. Schools



### **A.3.2 Parks and Recreation within the Study Area**

The proposed project is located in a mainly built-out urban environment; however, there are 52 parks, trails, and other recreational facilities located within 0.5 mile of the project alignment. Not all of them qualify as Section 4(f) resources, however, because a few are not available for public use; thus, only 19 qualify for Section 4(f) protection. Table 3 and Figure 3 display these available resources within 0.5 mile of the project alignment and provide information on each and whether they are affected by the project build alternatives.

**Table 3: Parks and Recreation within the Study Area**

<b>Property Name (Map Reference Number)</b>	<b>Location</b>	<b>Current Ownership</b>	<b>Facilities</b>	<b>Subject to Section 4(f) Protection?</b>	<b>Distance from Project Footprint (miles)</b>	<b>APN(s)</b>	<b>Impacts</b>
Rancho San Joaquin Golf Course (1)	One Ethel Coplen Way, Irvine, CA 92612	NGP Reality Sub	151.7 total acres, 63.5 acres within study area; 18-hole regulation length course; golf practice range; large multiuse field; clubhouse	No	0.14	453-011-83 453-011-94 453-252-01 453-252-02 453-011-89	No impacts
Rancho San Joaquin Community Park (2)	3 Ethel Coplen Way, Irvine, CA 92612	City of Irvine	1.4 acres; open space; BBQs; multiuse building	Yes	0.39	453-221-07	No impacts
San Mateo Park (3)	3370 Main Street, Irvine, CA 92614	Westpark Maintenance District	7.4 acres; open green space; multiuse trails; homeowner's association pool facility	No	0.03	447-161-06 447-161-28 447-195-26 447-195-27	No impacts
Culverdale Wilderness Park (4)	North of I-405, south of Claremont Street, Irvine, CA	City of Irvine	7.4 acres; green space; bicycle trail between San Diego Creek Trail and Jeffrey Bike Bridge	Yes	0.00	447-041-04 447-041-63 447-051-01	No impacts; adjacent to project
Westpark Village One Association Park (5)	3754 Hamilton Street, Irvine, CA 92614	Culverdale Community Association	3.7 acres; large multiuse field; walking trail; basketball court; tennis court; child play area	No	0.09	447-021-49	No impacts
San Leandro Park (6)	12 Paseo Westpark, Irvine, CA 92614	City of Irvine	4 acres; child play area; open play area, ball diamonds; soccer fields; barbecues; picnic area	Yes	0.30	447-231-02	No impacts
University Community Association Open Space 1 (7)	129 Seton Road, Irvine, CA 92612	University Community Association	2.2 acres; large multiuse open space area; pedestrian trail and greenbelt; homeowners' association Ironbark pool facility	No	0.00	453-042-86	No impacts; adjacent to project
University Community Association Open Space 2 (8)	4251 Peabody Way, Irvine, CA 92612	University Community Association	7.3 acres; tennis courts; pedestrian trails; open space; child play area; homeowners' association Pavilion pool facility	No	0.07	453-032-75 453-032-76 453-032-77 453-033-01 453-033-02	No impacts

**Table 3: Parks and Recreation within the Study Area**

Property Name (Map Reference Number)	Location	Current Ownership	Facilities	Subject to Section 4(f) Protection?	Distance from Project Footprint (miles)	APN(s)	Impacts
University Community Association Open Space 3 (9)	4455 McGuffey Way, Irvine, CA 92612	University Community Association	5.9 total acres, 4.4 acres within study area; volleyball pit; tennis court; child play area; homeowners' association McGuffey pool facility	No	0.32	453-0692-80 453-062-82 453-062-83 453-064-72	No impacts
Timber Run Park (10)	45 Timber Run, Irvine, CA 92614	Woodbridge Village Association	2 acres; multiuse greenspace; tennis courts; basketball courts; racquetball courts; pedestrian trail	No	0.26	452-302-29	No impacts
Blue Lake Park (11)	1 Summerstone, Irvine, CA 92614	Woodbridge Village Association	4 acres; large multiuse field; basketball court; child play area	No	0.09	452-251-07	No impacts
Springacre Park (12)	34 Springacre, Irvine, CA 92614	Woodbridge Village Association	3 acres; large multiuse field; pedestrian trail; picnic tables; child play area; volleyball courts	No	0.37	452-142-01 452-142-16 452-232-01	No impacts
Meadow Park (13)	50 Blue Lake S, Irvine, CA 92614	Woodbridge Village Association	2.2 acre; multiuse green space; child play area; small pedestrian trail	No	0.30	452-181-02	No impacts
Echo Run Park (14)	29 Echo Run, Irvine, CA 92614	Woodbridge Village Association	2 acres; large multiuse field; child play area picnic tables, pedestrian trail	No	0.10	452-281-03	No impacts
Clearbrook Park (15)	6 Clearbrook, Irvine, CA 92614	Woodbridge Village Association	2 acres; large multiuse field; child play area	No	0.02	452-202-02	No impacts
South Lake Park (16)	2 Blue Lake S, Irvine, CA 92612	Woodbridge Village Association	14 acres within the study area; beach club; tennis club; green space; pedestrian trails	No	0.17	452-291-02 452-421-01	No impacts
South Lake (17)	Alton Parkway, Irvine, CA 92604	Woodbridge Village Association	23.4 total acres, 15.9 acres within study area; lake; pedestrian bridge; gazebo	No	0.18	452-291-02	No impacts
Village Park (18)	4552 Michelson Drive, Irvine, CA 92612	Village Park Community Association	7.9 acres; large multiuse field, pedestrian trail; volleyball court; swimming pools; child play area	No	0.15	453-121-03 453-124-24 453-081-29	No impacts

**Table 3: Parks and Recreation within the Study Area**

<b>Property Name (Map Reference Number)</b>	<b>Location</b>	<b>Current Ownership</b>	<b>Facilities</b>	<b>Subject to Section 4(f) Protection?</b>	<b>Distance from Project Footprint (miles)</b>	<b>APN(s)</b>	<b>Impacts</b>
University Community Park (19)	1 Beech Tree Lane, Irvine, CA 92612	City of Irvine	19.6 total acres, 14.7 acres within study area; child play areas; soccer fields; open play area; racquetball/handball courts; tennis courts; basketball court; volleyball courts; ball diamond; BBQs; picnic tables	Yes	0.27	453-023-06 453-023-01	No impacts
Village Park Community Association Open Space 1 (20)	Aspen Tree Lane, Irvine, CA 92612	Village Park Community Association	0.5 acre; multiuse green space; child play area	No	0.48	453-102-40	No impacts
Village Park Community Association Open Space 2 (21)	Green Tree Lane, Irvine, CA 92612	Village Park Community Association	1.2 acres; child play area; pavilion; multiuse green space	No	0.28	453-082-01	No impacts
Village Park Community Association Open Space 3 (22)	Cedar Tree Lane, Irvine, CA, 92612	Village Park Community Association	0.7 acre; multiuse green space	No	0.45	453-103-42	No impacts
Dave Robbins Park (23)	5075 Tamarack Way, Irvine, CA	Parkside Community Association	4.9 acres; large multiuse field, bicycle and pedestrian walking trail	No	0.26	453-151-81	No impacts
William R. Mason Regional Park (24)	18712 University Drive, Irvine, CA 92612	Orange County Harbors Beaches & Parks District	345 total acres, 3 acres within study area; 9-acre lake; amphitheater; baseball fields; bicycle trails; picnic tables; fitness course; hiking trails; horseshoe pits, playground; volleyball courts	Yes	0.45	463-201-29 463-201-30	No impacts

**Table 3: Parks and Recreation within the Study Area**

<b>Property Name (Map Reference Number)</b>	<b>Location</b>	<b>Current Ownership</b>	<b>Facilities</b>	<b>Subject to Section 4(f) Protection?</b>	<b>Distance from Project Footprint (miles)</b>	<b>APN(s)</b>	<b>Impacts</b>
Strawberry Farms Golf Club (25)	11 Strawberry Farm Road, Irvine, CA 92612	Orange County Harbors Beaches & Parks District	204 total acres, 19.7 acres within study area; 18-hole regulation length course; large multiuse field; club house	Yes	0.38	481-201-01	No impacts
Terrace Community Association Open Space (26)	50 Jordan Avenue, Irvine, CA 92612	Terrace Community Association	6.5 acres; multiuse trails; open space; homeowners' association pool facilities	No	0.05	453-162-71 453-164-61 453-173-87	No impacts
Wintermist Park (27)	2 Springbrook S. Irvine, CA 92614	Woodbridge Village Association	1.7 acres; multiuse green space; child play area; basketball court	No	0.04	452-441-09	No impacts
Woodflower Park (28)	649 Springbrook N, Irvine, CA 92614	Woodbridge Village Association	2 acres; large multiuse field; child play area	No	0.29	452-401-01	No impacts
Briarglen Park (29)	651 Springbrook N, Irvine, CA 92614	Woodbridge Village Association	2 acres; large multiuse field; volleyball court; child play area	No	0.32	452-371-04	No impacts
Springbrook Park (30)	Springbrook North, Irvine, CA 92614	Woodbridge Village Association	1 acre; basketball courts; child play area; small pedestrian trail; green space	No	0.11	452-491-05	No impacts
Irvine Open Space Preserve - Quail Hill (31)	34 Shady Canyon Trail, Irvine, CA 92603	Irvine Ranch Conservancy	Irvine Open Space Preserve is 5,200 total acres, 342.5 acres within study area; open space; trailhead; multiuse trails	No	0.00	481-021-29 481-021-32 481-044-19 481-091-02 481-191-01 481-191-13 481-191-30 481-191-36	No impacts no impacts; adjacent to project
Royal Oak Park (32)	16492 Royal Oak, Irvine, CA 92618	Oak Creek Village Maintenance Association	3.5 acres; large multiuse field; child play area; basketball court; tennis courts	No	0.14	466-141-03 466-141-12	No impacts

**Table 3: Parks and Recreation within the Study Area**

<b>Property Name (Map Reference Number)</b>	<b>Location</b>	<b>Current Ownership</b>	<b>Facilities</b>	<b>Subject to Section 4(f) Protection?</b>	<b>Distance from Project Footprint (miles)</b>	<b>APN(s)</b>	<b>Impacts</b>
Dovecreek Park (33)	3 Dovecreek Irvine, CA 92618	City of Irvine	7.2 acres; child play area; ball diamonds; trails access; soccer fields; BBQ pits; picnic tables	Yes	0.15	466-121-01	No impacts
Ravencreek Park (34)	15521 Valley Oak, Irvine, CA 92618	Oak Creek Village Maintenance Association	2.9 acres; large multiuse green space, tennis courts, child play area	No	0.12	466-261-02	No impacts
Kelsey Lane Maintenance Association Open Space (35)	Dovecreek, Irvine, CA 92618	Kelsey Lane Maintenance Association	0.7 acre; pedestrian trail; green space	No	0.07	466-251-62 466-251-67 466-251-68 466-261-44	No impacts
Valley Oak Park (36)	16001 Valley Oak Drive, Irvine CA 92618	City of Irvine	2.8 total acres, 0.7 acre within study area; large multiuse field; basketball court; tennis courts; child play area; picnic area	Yes	0.47	466-024-10	No impacts
Quail Hill Community Park (37)	35 Shady Canyon Drive, Irvine, CA 92603	City of Irvine	17.8 acres; basketball courts; baseball fields with soccer field overlay; BBQ pits; picnic tables	Yes	0.11	481-062-55 481-062-56	No impacts
The Commons Park (38)	Passage & Seasons, Irvine, CA 92603	Quail Hill Community Association	2.5 acres; large multiuse field; pedestrian walkway; picnic tables	No	0.26	481-063-01	No impacts
Knollcrest Park (39)	2065 Knollcrest, Irvine, CA 92603	City of Irvine	6.4 acres; large multiuse field; child play area; picnic tables; tennis courts	Yes	0.27	481-072-03	No impacts

**Table 3: Parks and Recreation within the Study Area**

Property Name (Map Reference Number)	Location	Current Ownership	Facilities	Subject to Section 4(f) Protection?	Distance from Project Footprint (miles)	APN(s)	Impacts
San Diego Creek Trail (40)	South of I-405, runs north and loops southeast, past I-405	City of Irvine	15 total miles, 1.14 miles within the north portion of the study area, 2.91 miles within the south portion of the study area; Class I bicycle trail, serves as major connection to many local and regional trails and cities. The trail directly connects some local neighborhoods to western and eastern portions of city, multiple commercial centers, local and regional open spaces, and parks such as Bill Barber Community Park, Mike Ward Community Park, and Windrow Community Park. The trail also provides connection to other trails such as Jeffrey Open Space Trail, Walnut Trail, Freeway Trail, Peters Canyon Trail, and Sand Canyon Side Path.	Yes	0.00	NA	No physical project impacts. Temporary closure of north and south San Diego Creek Trail during bridge widening. North area travels under I-405 for 0.05 mile. South area travels under I-405 for 0.09 mile.
Freeway Trail (41)	North of I-405, runs east along I-405, trail ends at Sand Canyon Avenue	City of Irvine	3.65 total miles, all within the study area; open space; bicycle and pedestrian trail; runs east/west along the north side of I-405 in the Southern California Edison easement, between San Diego Creek Trail and the Jeffrey/I-405 bike bridge; connects to San Diego Creek Trail and Jeffrey Open Space Trail.	Yes	0.00	NA	Alternatives 2 and 3: No permanent impact. Temporary impact to 1,000 feet of the trail by a TCE

**Table 3: Parks and Recreation within the Study Area**

<b>Property Name (Map Reference Number)</b>	<b>Location</b>	<b>Current Ownership</b>	<b>Facilities</b>	<b>Subject to Section 4(f) Protection?</b>	<b>Distance from Project Footprint (miles)</b>	<b>APN(s)</b>	<b>Impacts</b>
Old San Diego Creek Trail (42)	North of I-405, starts at Freeway Trail and heads northeast towards San Mateo Park	City of Irvine	0.31 total mile, all within the study area; open space; bicycle and pedestrian trail	Yes	0.02	NA	No impacts
Woodbridge Trail (43)	Starting at University Drive and Yale Avenue heading north to the Woodbridge neighborhood and continuing north around South Lake	Woodbridge Village Association	1 mile within the study area; bicycle and pedestrian trail is an extension of San Diego Creek Trail and runs north and south of San Diego Creek Channel, through the neighborhood of Woodbridge	No	0.00	NA	No impacts. Trail travels over I-405 for 0.07 mile
University Trail (44)	South of I-405, starting at San Diego Creek Trail traveling east parallel with University Drive to Jeffrey Open Space Trail	Orange County	3.60 total miles, 1.31 miles within the study area; multiuse field; bicycle and pedestrian trails	Yes	0.002	NA	No impacts
Jeffrey Open Space Trail (45)	Runs along Jeffrey Road going northeast and ends at Portola Parkway	City of Irvine	3.5 total miles, 0.82 mile within study area; bicycle and pedestrian trail; green space; connects to San Diego Creek Trail	Yes	0.00	NA	No impacts. Trail travels over I-405 for 0.07 mile
Quail Hill Loop (46)	34 Shady Canyon, Irvine, CA 92603	Irvine Ranch Conservancy	1.70 mile all within the study area; open space; unpaved trail	No	0.11	NA	No impacts



**Table 3: Parks and Recreation within the Study Area**

Property Name (Map Reference Number)	Location	Current Ownership	Facilities	Subject to Section 4(f) Protection?	Distance from Project Footprint (miles)	APN(s)	Impacts
Juanita Moe Trail (47)	South of I-405; from the Jeffrey Open Space Trail I-405 bridge, along I-405, to Sand Canyon Avenue	City of Irvine	0.86 mile all within the study area; open space; bicycle and pedestrian trail; links University Trail, Jeffrey Open Space Trail, and Shady Canyon Trail	Yes	0.002	NA	No impacts
Quail Hill Trail (48)	34 Shady Canyon, Irvine, CA 92603	Irvine Ranch Conservancy	0.35 mile all within the study area; open space; bicycle and pedestrian trail	No	0.01	NA	No impacts
Shady Canyon Bikeway (49)	34 Shady Canyon, Irvine, CA 92603	City of Irvine	2.8 total miles, 0.73 mile within the study area; connects the Quail Hill Trailhead to the Bommer Canyon Trailhead; open space; bicycle and pedestrian trail	Yes	0.00	NA	No impacts; adjacent to project
Quail Trail (50)	34 Shady Canyon, Irvine, CA 92603	Irvine Ranch Conservancy	0.5 mile total, 0.33 mile within the study area; bicycle and pedestrian unpaved trail; from the Quail Hill Trailhead travels west to open space and more trails	No	0.40	NA	No impacts
Sand Canyon Trail (51)	North of I-405, starting at I-405 traveling north to Portola Parkway	City of Irvine	4.41 total miles, 0.40 mile within study area; bicycle and pedestrian trail; connects I-405 to Portola Parkway	Yes	0.11	NA	No impacts

**Table 3: Parks and Recreation within the Study Area**

Property Name (Map Reference Number)	Location	Current Ownership	Facilities	Subject to Section 4(f) Protection?	Distance from Project Footprint (miles)	APN(s)	Impacts
Barranca Trail (52)	North of I-405, from Jeffrey Open Space Trail parallel along the north side of San Diego Creek to SR-133	City of Irvine	2.25 total miles, 0.89 mile within study area; bicycle and pedestrian trail; bikeway runs east/west and extends from Jeffrey Open Space Trail to SR-133; parallels San Diego Creek and is located on the north side of San Diego Creek Trail	Yes	0.05	NA	No impacts

Source: Parsons, 2017.

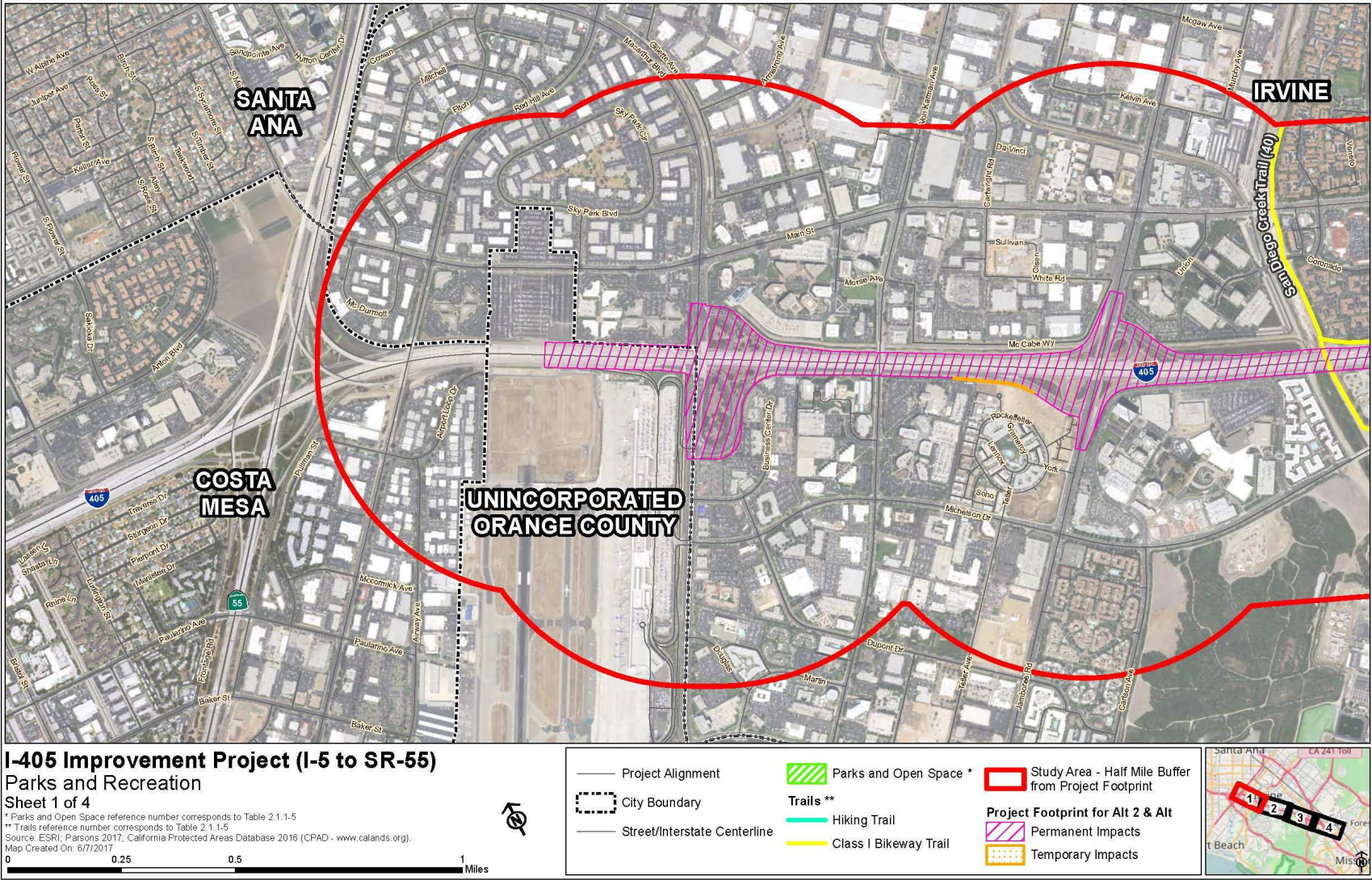


Figure 3. Parks and Recreation (Sheet 1 of 4)



APPENDIX A RESOURCES EVALUATED RELATIVE  
TO THE REQUIREMENTS OF SECTION 4(F)

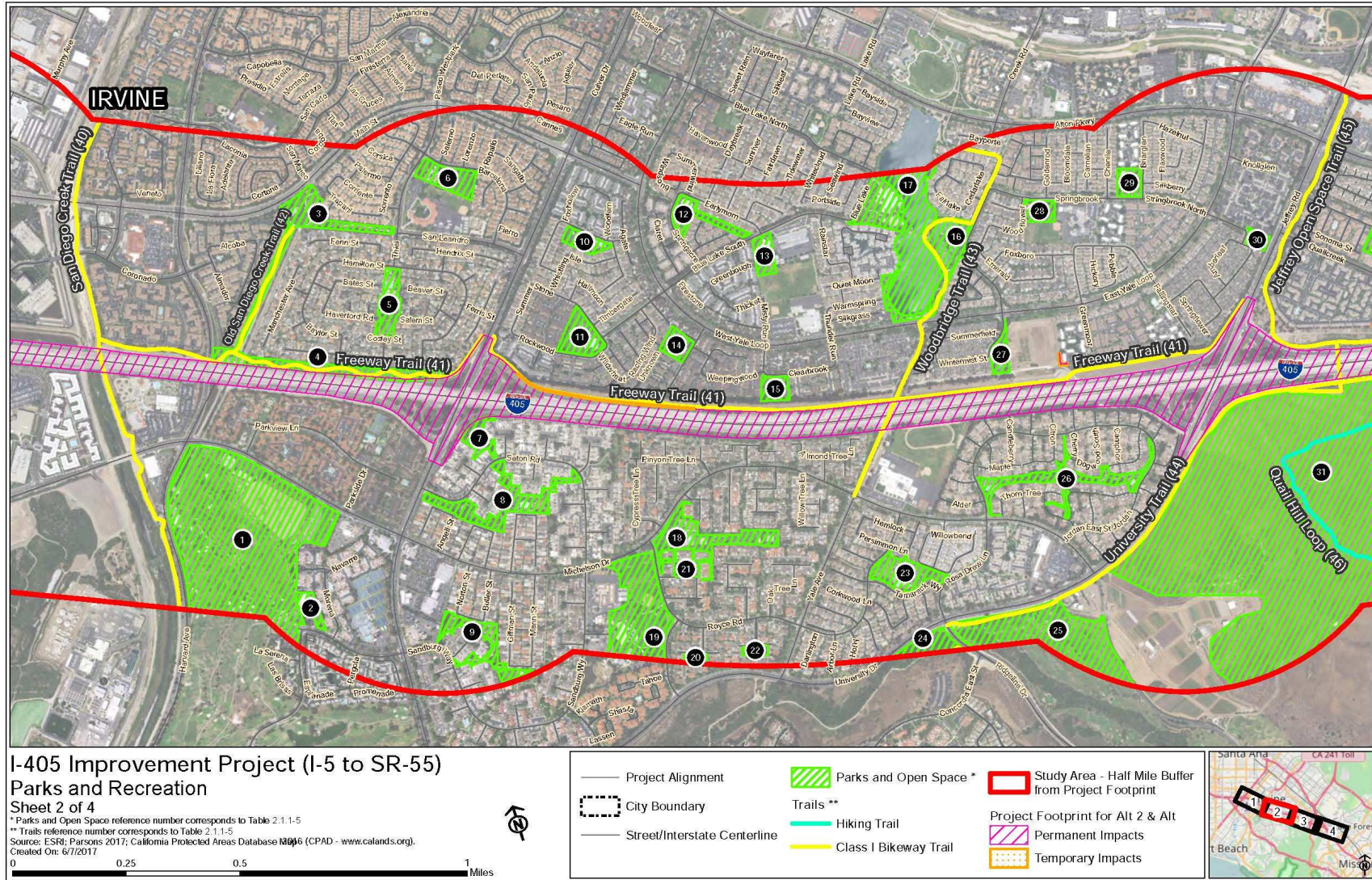


Figure 3. Parks and Recreation (Sheet 2 of 4)



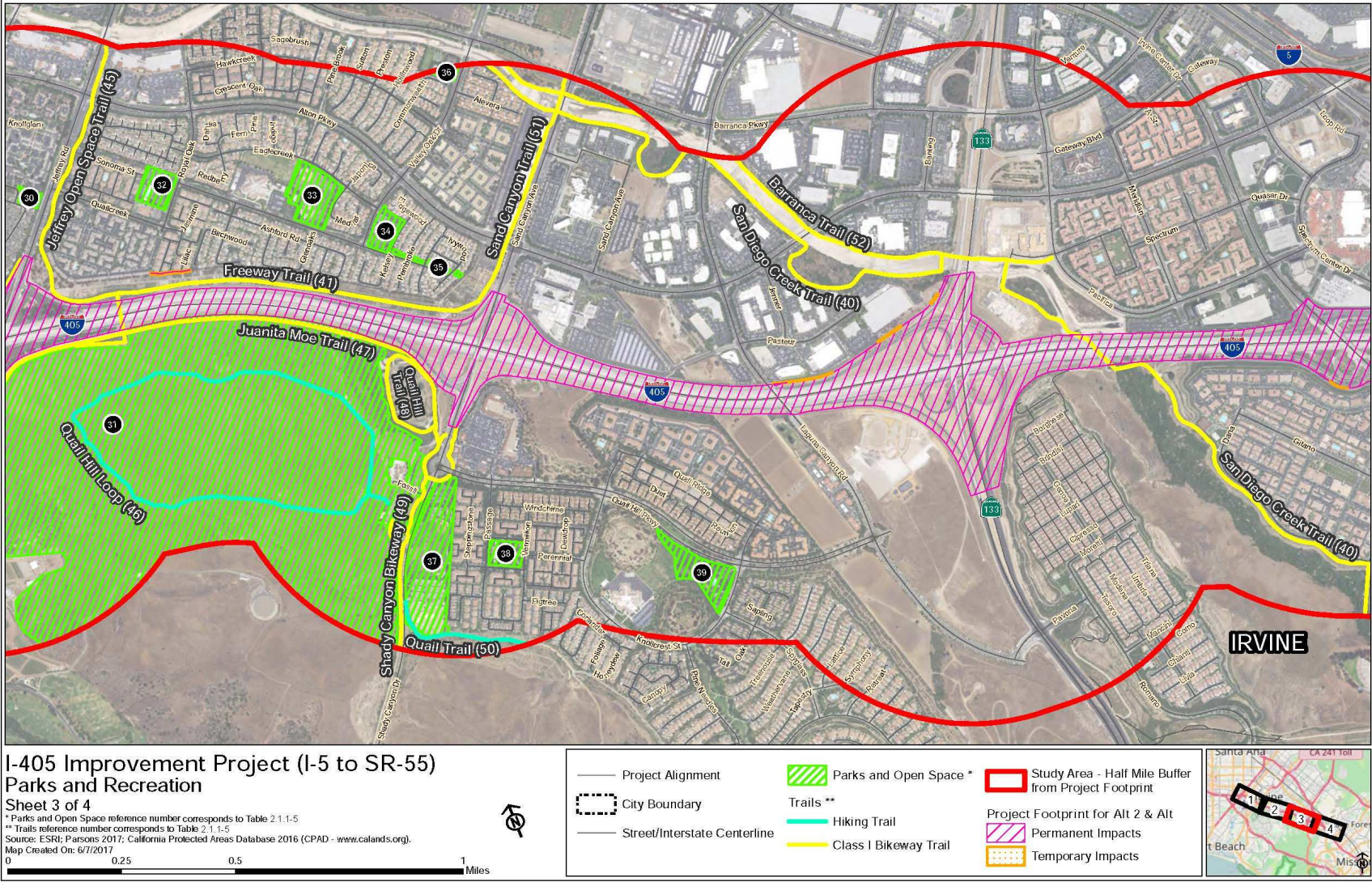


Figure 3. Parks and Recreation (Sheet 3 of 4)



APPENDIX A RESOURCES EVALUATED RELATIVE  
TO THE REQUIREMENTS OF SECTION 4(F)

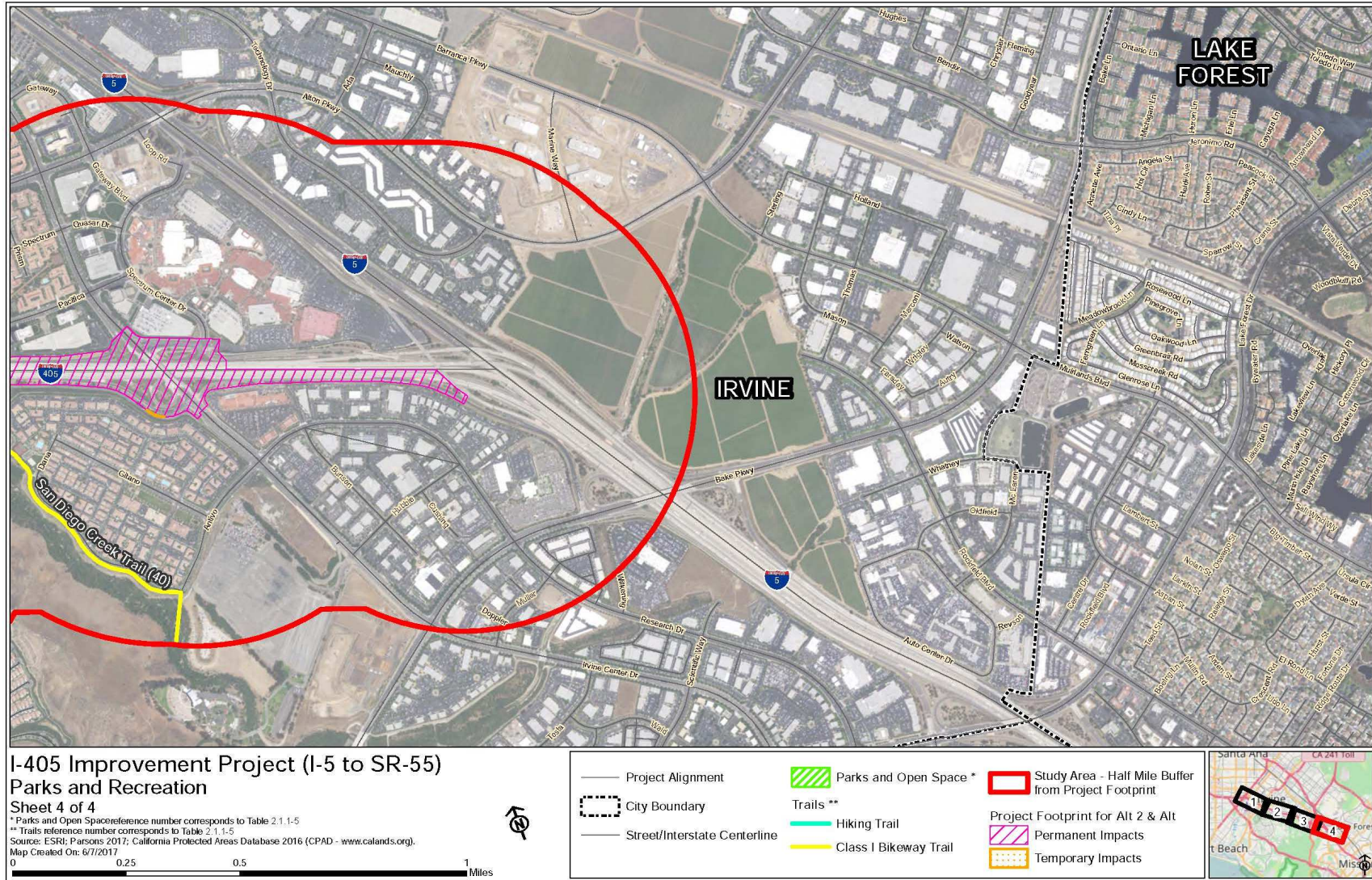


Figure 3. Parks and Recreation (Sheet 4 of 4)

### A.3.3 Wildlife Refuges within Project Study Area

Another Section 4(f) resource within 0.5 mile of the proposed project alignment is San Joaquin Marsh and Wildlife Sanctuary, which is owned by Irvine Ranch Water District (see Table 4). As shown in Figure 4, the wildlife refuge is located more than 1,177 feet from the project alignment; therefore, the proposed build alternatives would not have any effect on this resource through construction or operation of the project.

**Table 4. Wildlife Refuges**

Property Name	Location	Current Ownership	Facilities	Subject to Section 4(f) Protection?	Distance from Project Footprint (miles)
Irvine Ranch Water District San Joaquin Marsh & Wildlife Sanctuary	5 Riparian View, Irvine, CA 92612	Irvine Ranch Water District	300 acres; trails; 200 bird species	Yes	0.22

Source: Parsons, 2017.



APPENDIX A RESOURCES EVALUATED RELATIVE  
TO THE REQUIREMENTS OF SECTION 4(F)

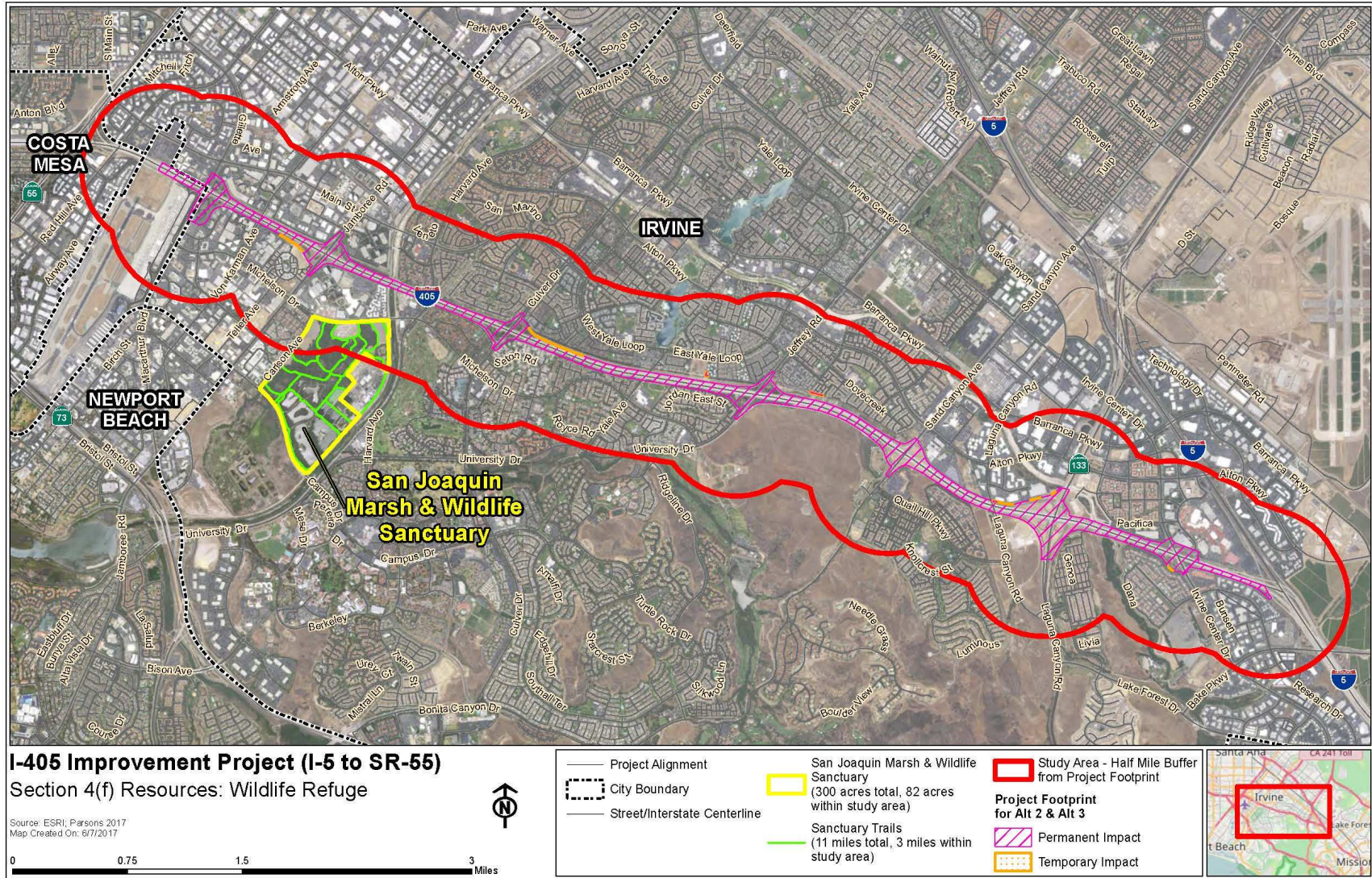


Figure 4. Wildlife Refuges



### **A.3.4 Historic and Archaeological Sites**

Many efforts have been undertaken to identify historic properties, including a Supplemental Historic Property Survey Report (SHPSR) (November 2017), *Historic Properties Survey Report* (HPSR) (April 2016) and an *Archaeological Survey Report* (ASR) (March 2016). The purpose of the HPSR and ASR is to identify and evaluate buildings, structures, and sites along the project alignments that may qualify for listing in the NRHP and the California Register of Historical Resources (CRHR). These reports were prepared using the established framework for resource identification and treatment outlined in the First Amended Section 106 Programmatic Agreement (PA) (2014), as appropriate. Potential historic properties were identified and evaluated for inclusion in the NRHP as required by 36 CFR Part 800 and the regulations implementing Section 106 of the National Historic Preservation Act (NHPA).

The results of these studies and subsequent analysis found that no built environment resources were eligible for the NRHP. Lastly, an archaeological survey of the area of potential effects (APE) was conducted November 4, 2015. No archaeological resources were identified within the APE during the survey. Only one archaeological resource was identified 0.25 mile from the APE (CA-ORA-1580), and it was not considered eligible for the NRHP; therefore, there are no cultural resources eligible for or listed in the NRHP that would be affected by this project and, thus, there are no Section 4(f) NRHP properties for the purposes of this project.

## **A.4 Description of Section 4(f) Resources**

Although there are 25 Section 4(f) resources within the study area, only 2 are affected by the proposed project: San Diego Creek Trail (Map Reference No. 40) and Freeway Trail (Map Reference No. 41). These trails are Class I Off Road (paved) bike trails that would be temporarily impacted by project construction. The Freeway, Culverdale Wilderness, and Jeffrey Open Space trails and the Shady Canyon Bikeway are located within the City of Irvine's boundaries and are under the City of Irvine's jurisdiction. The San Diego Creek Trail – North is under the County of Orange's jurisdiction, while the San Diego Creek Trail – South is under the City of Irvine's jurisdiction and the County of Orange's jurisdiction. All trails are subject to protection under the provisions of Section 4(f). The San Diego Creek Trail – North and the San Diego Creek Trail – South are located on the outer boundaries of San Diego Creek. Freeway Trail is located along the I-405 northbound lanes, outside of State right-of-way.

Additionally, of these 25 Section 4(f) resources, there are three more resources within or adjacent to the project footprint: Culverdale Wilderness Park, Jeffrey Open Space Trail, and Shady Canyon Bikeway. Although these resources are adjacent to the project, or run either under or over the alignment, no physical impacts would occur to these three resources. Nevertheless, they are included in this analysis to determine whether proximity impacts to these resources would occur, resulting in substantial impairment of the resource.

#### **A.4.1 San Diego Creek Trail**

San Diego Creek Trail is 15 miles in length and follows San Diego Creek Channel. The bikeway provides a connection to Newport Beach to the south and the cities of Tustin and Orange to the north. The San Diego Creek Trail – North falls within the County of Orange’s jurisdiction, while the San Diego Creek Trail – South falls within the County of Orange’s jurisdiction and the City of Irvine’s jurisdiction. It also connects residents to the IBC, UCI, local commercial centers, and other local and regional parks such as Bill Barber Community Park, Mike Ward Community Park, and Windrow Community Park. The trail also provides connection to other trails such as Jeffrey Open Space Trail, Walnut Trail, Freeway Trail, Peters Canyon Trail, and Sand Canyon Side Path. Connections between western and eastern portions of Irvine are also provided, and residents of the Westpark, Woodbridge, and Oak Creek neighborhoods have direct access to San Diego Creek Trail.

Along the project corridor, San Diego Creek Trail crosses under I-405 at two locations:

- The southern crossing (at Reach 2 of San Diego Creek Channel) is located under I-405 between Irvine Center Drive and SR-133 and is approximately 2.9 miles in length (see Figure 5).
- The northern crossing (at Reach 1 of the San Diego Creek Channel) is located under I-405 between Jamboree Road and Harvard Avenue and is approximately 1.2 miles in length (see Figure 6).

The bicycle trail along San Diego Creek is predominantly asphalt and has striping along most segments. It is accessible to cyclists and pedestrians and is identified as a Class I Off Road (paved) bike trail.

**Figure 5. San Diego Creek Trail Southern Crossing  
(at Reach 2 of San Diego Creek Channel)**



**Figure 6. San Diego Creek Trail Northern Crossing  
(at Reach 1 of the San Diego Creek Channel)**



#### **A.4.2 Freeway Trail just south of Culver Drive**

The Freeway Trail is approximately 3.65 miles in length and is completely within the project study area. It is within the City of Irvine's jurisdiction and management. It is classified as a greenway and runs parallel to the north side of I-405 in the Southern California Edison easement, between San Diego Creek Trail – North and Sand Canyon Avenue. It also connects to San Diego Creek Trail, Jeffrey Open Space Trail, Sand Canyon Avenue, and Alton Parkway. The trail consists of a paved bicycle and pedestrian trail. Because the trail is primarily a connector trail, there are no dedicated parking lots for the trail; however, it can be accessed via trailheads and by some local roads. It is accessible to cyclists and pedestrians and is identified as a Class I Off Road (paved) bike trail (see Figure 7).

**Figure 7. Freeway Trail**



#### **A.4.3 Culverdale Wilderness Park**

Located north of I-405 and south of Claremont Street in Irvine, Culverdale Wilderness Park features 7.4 acres of land. Included in its boundaries is green space and a bicycle trail between San Diego Creek Trail and Jeffrey Bike Bridge. It is within the City of Irvine's jurisdiction. It can be accessed via Reed Avenue, Claremont Street, and the Freeway Trail bike path.

#### **A.4.4 Jeffrey Open Space Trail**

Jeffrey Open Space Trail is 3.5 total miles in length and consists of a bicycle and pedestrian trail and green space. The trail connects to San Diego Creek Trail. It is within the City of Irvine's jurisdiction. Although the trail has 0.82 mile within the study area for this project (including the 0.5-mile buffer), it travels over I-405 for approximately 0.07 mile and would not be affected by the project during either construction or operation.

#### A.4.5 Shady Canyon Bikeway

Shady Canyon Bikeway is approximately 4 miles in length and consists of a paved bicycle and pedestrian trail that connects Juanita Moe Trail, Quail Hill Parkway, Shady Canyon Drive, and ends at Irvine’s University High School. It is within the City of Irvine’s jurisdiction. Because the trail is primarily a connector trail, there are no dedicated parking lots for the bikeway; however, it can be accessed via trailheads and by some local roads.

### A.5 Impacts to Section 4(f) Resources

This section describes potential “use” of Section 4(f) resources. Of the 19 public parks, trails, and recreational facilities that qualify as Section 4(f) resources, use is discussed for 2 resources where closures of recreational facilities would occur and for 3 resources adjacent to the project alignment. There would be no Section 4(f) use under the No Build Alternative, thus, Table 5 provides a summary of use limited to the build alternatives.

**Table 5: Section 4(f) Use Summary for Build Alternatives**

Property Name	Jurisdiction	Direct Use	Temporary Occupancy	Temporary Use	Constructive Use	Comments
San Diego Creek Trail – North	County of Orange	No	No	Yes	No	No permanent impacts. Temporary closure would be required to widen the I-405 mainline bridge. Detour provided.
San Diego Creek Trail – South	County of Orange and City of Irvine	No	No	Yes	No	No permanent impacts. Temporary closure would be required to widen the I-405 mainline bridge. Detour provided.
Freeway Trail	City of Irvine	No	No	Yes	No	No permanent impacts. Temporary closure of 1,000 feet would be required to construct soundwalls. Detour provided.
Culverdale Wilderness Park	City of Irvine	No	No	No	No	No permanent, temporary or indirect impacts.
Jeffrey Open Space Trail	City of Irvine	No	No	No	No	No permanent, temporary or indirect impacts.
Shady Canyon Bikeway	City of Irvine	No	No	No	No	No permanent, temporary or indirect impacts.

Source: Parsons, 2017.

A detailed discussion of use for each resource is provided below.

### **A.5.1 San Diego Creek Trail**

Where applicable in this section, the trail will be referred to in terms of the two separate resources: San Diego Creek Trail – Southern Crossing and San Diego Creek Trail – Northern Crossing.

#### ***Alternative 1 (No Build)***

Because there are no proposed improvements under Alternative 1, the use of San Diego Creek Trail would not occur as a result of this alternative.

#### ***Build Alternative 2 (Preferred Alternative) and Build Alternative 3***

##### ***Direct Use***

Alternatives 2 and 3 would not require any acquisition or permanent easement from San Diego Creek Trail. Land from this resource would not be permanently incorporated into the project, either through partial or full acquisition. Furthermore, no permanent project features would be constructed that would modify or otherwise permanently alter the trail; therefore, there would be no direct use of San Diego Creek Trail.

##### ***Temporary Use***

#### **San Diego Creek Trail – Southern Crossing**

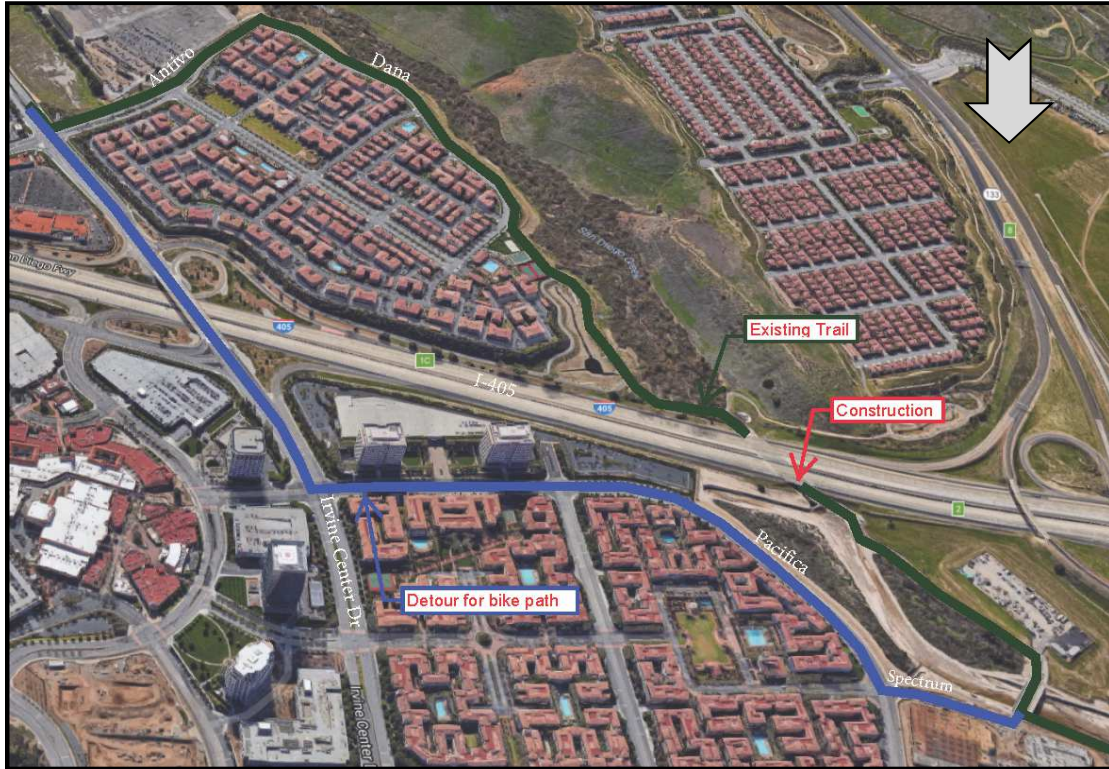
Under both build alternatives, the San Diego Creek Bridge (Reach 1) would need to be widened to accommodate the proposed highway widening. Due to the close distance between the bridge abutment pier and the bike trail, full closure of this trail would be necessary for approximately 9 months to allow construction of the bridge foundation, pier, falsework, girder, and restoration of the bike trail, as needed, due to construction impacts. A detour is proposed beginning at the intersection of the trail and Irvine Center Drive/Research Drive, along Irvine Center Drive, Pacifica Road, and Spectrum Road where it rejoins the trail (see Figure 8).

Closures to the bike trail may be necessary to protect the safety of trail users and construction workers. At the completion of construction, the trail segment would be restored to its original alignment and to a condition as good as or better than prior to the project. The maximum length of time in which the trail segment would be temporarily closed would be substantially less than the construction duration of the project, and a detour is proposed for each of the trail segments. The temporary detour would be part of the Transportation Management Plan (TMP) developed during the Plans, Specifications, and Estimates (PS&E) phase of the project. Coordination of any trail closure plan would be coordinated with the City of Irvine and the County of



Orange. During construction, the City of Irvine and County of Orange will be notified in advance of closure of the trail.

**Figure 8. Detour for San Diego Creek Trail – Southern Crossing**



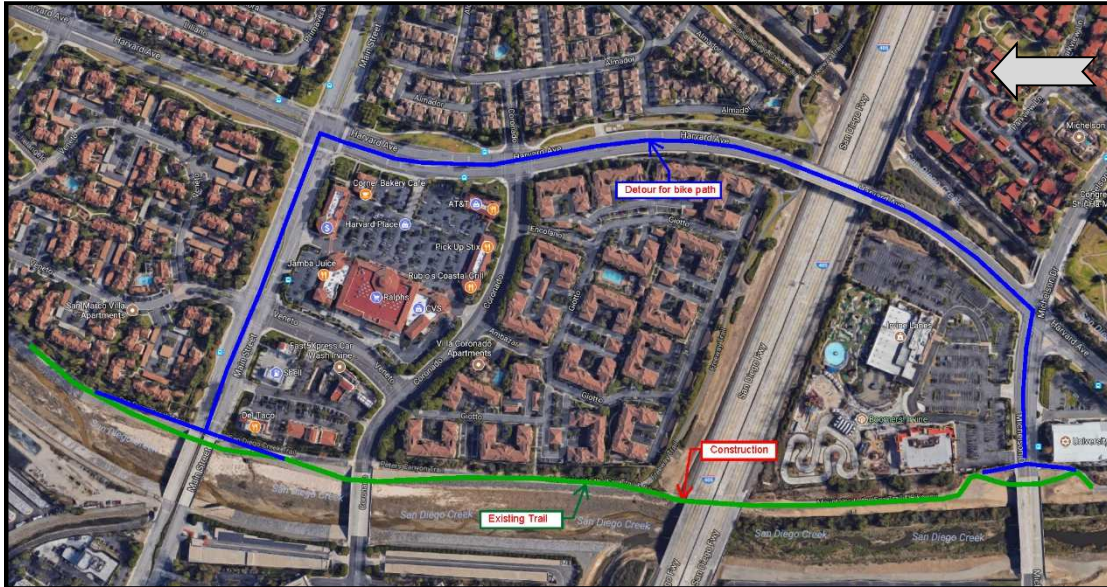
#### San Diego Creek Trail – Northern Crossing

Under both build alternatives, the San Diego Creek Bridge (Reach 2) would need to be widened to accommodate the proposed highway widening. Due to the close distance between the southerly bridge abutment and the bike trail, full closure of this trail would be necessary for a total combined duration of less than 90 days to allow construction of the bridge foundation, abutments, falsework, and girders and restoration of the bike trail, as needed. A detour is proposed beginning at the intersection of Harvard Avenue and Michelson Drive, proceeding along Harvard Avenue, then along Main Street until it rejoins the trail (see Figure 9).

Closures to the bike trail may be necessary to protect the safety of trail users and construction workers. At the completion of construction, the trail segment would be restored to its original alignment and to a condition as good as or better than prior to the project. The maximum length of time in which the trail segment would be temporarily closed would be substantially less than the construction duration of the project, and a detour is proposed for each of the trail segments. The temporary detour would be part of the TMP developed during the PS&E phase of the project.

Coordination of any trail closure plan would be coordinated with the City of Irvine and the County of Orange.

**Figure 9. Detour for San Diego Creek Trail – Northern Crossing**



### *Temporary Occupancy*

Due to the potential for trail closure during project construction, there may be temporary interference with the protected activities of this property, therefore a temporary occupancy does not apply.

### *Constructive Use*

Both build alternatives would not result in a constructive use of San Diego Creek Trail. An indirect impact would be considered a constructive use under Section 4(f) if the impact were so severe that the public did not have access to the trail and/or the recreational activities occurring within the trail. Indirect uses related to the build alternatives are discussed below.

**Accessibility.** Although access to the southern and northern segments of San Diego Creek Trail would be temporarily limited during construction, a detour bike path is proposed. Once construction is concluded in the location of the closure, the bike path would be reopened for public use; therefore, indirect impacts to accessibility would not occur. Access to the trail would not be limited during project operation.

**Visual.** Alternatives 2 and 3 would not result in any indirect visual changes. Direct visual changes as a result of temporarily disturbed areas would be returned to pre-project conditions once construction is completed.



**Air Quality and Noise.** Indirect air quality and noise impacts are not expected to result in a constructive use of the San Diego Creek Trail. The trail is currently subject to indirect air quality and noise impacts due to its proximity to the existing I-405 mainline and its location in a built-out suburban environment. The incremental increase in noise and air quality impacts during construction and operation would not inhibit existing recreational functions of the trail that are already subject to noise and air quality associated with I-405.

**Vibration.** Vibration impacts because of the improvement project would not result in a constructive use of San Diego Creek Trail. Vibration generated by construction equipment can result in varying degrees of ground vibration, depending on the equipment. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance from the piece of construction equipment. These impacts would be short term and would not inhibit recreational use of the site during construction. During operation, ground-borne vibration impacts are not anticipated beyond the impacts currently experienced because of vehicles traveling through the study area; therefore, there would be no vibration impacts at San Diego Creek Trail that would result in a Section 4(f) constructive use.

**Vegetation and Wildlife.** San Diego Creek Trail is located in a built-out suburban area. The following vegetation types and other areas occur in the project Biological Study Area (BSA): sagebrush scrub; revegetation scrub; annual grassland; ruderal; coastal freshwater marsh; riparian herb; southern willow scrub; mulefat scrub; southern black willow forest; perennial rivers and streams; flood control channel; developed; parks and ornamental plantings; sycamore plantings; oak plantings; and cleared or graded. Most of the BSA is surrounded by urbanization, which constrains wildlife movement opportunities to the open space along San Diego Creek – North, San Diego Creek – South, and the adjacent Quail Hill Open Space.

**Water Quality.** Construction of the improvement project has the potential to affect water quality. Potential pollutant sources from the building phase of these alternatives include construction activities and materials expected at the project site, such as vehicle fluids; concrete and masonry products; landscaping and other products; and contaminated soils. Similarly, operation of the improvement project has the potential to affect water quality. Potential pollutant sources associated with operation of this alternative include motor vehicles, highway maintenance, illegal dumping, spills, and landscaping care. Alternative 2 would temporarily disturb 131.8 acres, and Alternative 3 would temporarily disturb 142.8 acres.

It is anticipated that construction of the proposed project would affect downstream water bodies. Construction of the project and the increase in runoff would potentially cause or contribute to an alteration in water quality and have the potential to affect the beneficial use of the water bodies within the project limits; however, with minimization measures, short-term and long-term water quality impacts associated with the improvement project would not substantially impair the activities, features, and/or attributes that qualify San Diego Creek Trail for protection under Section 4(f).

### **A.5.2 Freeway Trail**

#### ***Alternative 1 (No Build)***

Because there are no proposed improvements under Alternative 1, the use of Freeway Trail would not occur as a result of this alternative.

#### ***Build Alternative 2 (Preferred Alternative) and Build Alternative 3***

##### ***Direct Use***

Alternatives 2 and 3 would not require any permanent acquisition from this resource. No land from this resource would be permanently incorporated into the project through partial acquisition. No permanent project features would be constructed that would modify or otherwise permanently alter the trail; therefore, there would be no direct use of Freeway Trail.

##### ***Temporary Use***

Both build alternatives associated with the proposed project (Alternatives 2 and 3) would result in the temporary closure of Freeway Trail during construction of a soundwall adjacent to the northbound Culver Drive off-ramp. Although a TCE is needed along 2,100 feet in length, approximately 1,000 feet of the trail would be temporarily impacted by the TCE. Closure of the trail would be necessary for a total combined duration of less than 90 days for installation of temporary fencing along the edge of the trail and other construction activities. A detour is proposed beginning at the intersection of the bike trail and Yale Avenue, proceeding along Yale Avenue and West Yale Loop, then along Main Street to Culver Drive until it rejoins the trail near I-405 at Culver Drive (see Figure 10).

Closures to the bike trail may be necessary to protect the safety of trail users and construction workers. At the completion of construction, the trail segment would be restored to its original alignment and to a condition as good as or better than prior to the project. The maximum length of time in which the trail segment would be temporarily closed would be substantially less than the construction duration of the project, and a detour is proposed for each of the trail segments. The temporary detour would be part of the TMP developed during the PS&E phase of the project.

Coordination of any trail closure plan would be coordinated with the City of Irvine and the County of Orange.

**Figure 10. Detour for Freeway Trail**



### *Temporary Occupancy*

Due to the potential for trail closure during project construction, there may be temporary interference with the protected activities of this property, therefore a temporary occupancy does not apply.

### *Constructive Use*

Alternatives 2 and 3 would not result in a constructive use of Freeway Trail. An indirect impact would be considered a constructive use under Section 4(f) if the impact were so severe that the public did not have access to the park or the bike path. Indirect uses related to the build alternatives are discussed below.

**Accessibility.** Although access to Freeway Trail, south of Culver Drive, would be temporarily limited during construction, a detour bike path is proposed. Once construction is concluded in the location of the closure, the bike path would be reopened for public use; therefore, indirect impacts to accessibility would not occur. Access to the trail would not be limited during project operation.

**Visual.** Alternatives 2 and 3 would not result in any indirect visual changes. Direct visual changes as a result of temporarily disturbed areas would be returned to pre-project conditions once construction is completed.

**Air Quality and Noise.** Indirect air quality and noise impacts are not expected to result in a constructive use of the Freeway Trail. The trail is currently subject to indirect air quality and noise impacts due to its proximity to the existing I-405 mainline and its location in a built-out suburban environment. The incremental increase in noise and air quality impacts during construction and operation would not inhibit existing recreational functions of the trail that are already subject to noise and air quality associated with I-405.

**Vibration.** Vibration impacts because of the improvement project would not result in a constructive use of Freeway Trail. Vibration generated by construction equipment can result in varying degrees of ground vibration, depending on the equipment. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance from the piece of construction equipment. These impacts would be short term and would not inhibit recreational use of the trail during construction. During operation, ground-borne vibration impacts are not anticipated beyond the impacts currently experienced because of vehicles traveling through the study area; therefore, there would be no vibration impacts on Freeway Trail that would result in a Section 4(f) constructive use.

**Vegetation and Wildlife.** Freeway Trail is located in a built-out suburban area. The following vegetation types and other areas occur in the project BSA: sagebrush scrub; revegetation scrub; annual grassland; ruderal; coastal freshwater marsh; riparian herb; southern willow scrub; mulefat scrub; southern black willow forest; perennial rivers and streams; flood control channel; developed; parks and ornamental plantings; sycamore plantings; oak plantings; and cleared or graded. Most of the BSA is surrounded by urbanization, which constrains wildlife movement opportunities to the open space along San Diego Creek – North, San Diego Creek – South, and the adjacent Quail Hill Open Space.

**Water Quality.** Construction of the improvement project has the potential to affect water quality. Potential pollutant sources from the building phase of these alternatives include construction activities and materials expected at the project site, such as vehicle fluids; concrete and masonry products; landscaping and other products; and contaminated soils. Similarly, operation of the improvement project has the potential

to affect water quality. Potential pollutant sources associated with operation of this alternative include motor vehicles, highway maintenance, illegal dumping, spills, and landscaping care. Alternative 2 would temporarily disturb 131.8 acres, and Alternative 3 would temporarily disturb 142.8 acres.

It is anticipated that construction of the proposed project would affect downstream water bodies. Construction of the project and the increase in runoff would potentially cause or contribute to an alteration in water quality and have the potential to affect the beneficial use of the water bodies within the project limits; however, with minimization measures, short-term and long-term water quality impacts associated with the improvement project would not substantially impair the activities, features, and/or attributes that qualify Freeway Trail for protection under Section 4(f).

### **A.5.3 Culverdale Wilderness Park**

#### ***Alternative 1 (No Build)***

Because there are no proposed improvements under Alternative 1, the use of Culverdale Wilderness Park would not occur as a result of this alternative.

#### ***Build Alternative 2 (Preferred Alternative) and Build Alternative 3***

##### ***Direct Use***

Alternatives 2 and 3 would not require any permanent acquisition from this resource. No land from this resource would be permanently incorporated into the project through partial acquisition. No permanent project features would be constructed that would modify or otherwise permanently alter the park; therefore, there would be no direct use of Culverdale Wilderness Park.

##### ***Temporary Use***

Although the park is located in close proximity to the proposed build alternative alignments, there is no proposed temporary use of the park.

##### ***Temporary Occupancy***

There is no potential for temporary occupancy of Culverdale Wilderness Park. This resource is not within the project construction footprint; therefore, a temporary occupancy does not apply.

##### ***Constructive Use***

Alternatives 2 and 3 would not result in a constructive use of Culverdale Wilderness Park. An indirect impact would be considered a constructive use under Section 4(f) if

the impact were so severe that the public did not have access to the park or the bike path. Indirect uses related to the build alternatives are discussed below.

**Accessibility.** Access to and parking for Culverdale Wilderness Park would be maintained at all times during construction and operation of Alternatives 2 and 3; therefore, indirect impacts to accessibility would not occur.

**Visual.** Alternatives 2 and 3 would not result in any indirect visual changes. Direct visual changes would not occur because the resource is not within the project construction footprint.

**Air Quality and Noise.** Indirect air quality and noise impacts are not expected to result in a constructive use of Culverdale Wilderness Park. The park is currently subject to indirect air quality and noise impacts due to its proximity to the existing I-405 mainline and its location in a built-out suburban environment. The incremental increase in noise and air quality impacts during construction, and operation, would not inhibit existing functions of the park that are already subject to noise and air quality associated with I-405.

**Vibration.** Vibration impacts because of the improvement project would not result in a constructive use of Culverdale Wilderness Park. Vibration generated by construction equipment can result in varying degrees of ground vibration, depending on the equipment. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance from the piece of construction equipment. These impacts would be short term and would not inhibit recreational use of the park during construction. During operation, ground-borne vibration impacts are not anticipated beyond the impacts currently experienced because of vehicles traveling through the study area; therefore, there would be no vibration impacts on Culverdale Wilderness Park that would result in a Section 4(f) constructive use.

**Vegetation and Wildlife.** Culverdale Wilderness Park is located in a built-out suburban area. The following vegetation types and other areas occur in the project BSA: sagebrush scrub; revegetation scrub; annual grassland; ruderal; coastal freshwater marsh; riparian herb; southern willow scrub; mulefat scrub; southern black willow forest; perennial rivers and streams; flood control channel; developed; parks and ornamental plantings; sycamore plantings; oak plantings; and cleared or graded. Most of the BSA is surrounded by urbanization, which constrains wildlife movement

opportunities to the open space along San Diego Creek – North, San Diego Creek – South, and the adjacent Quail Hill Open Space.

**Water Quality.** Construction of the improvement project has the potential to affect water quality. Potential pollutant sources from the building phase of these alternatives include construction activities and materials expected at the project site, such as vehicle fluids; concrete and masonry products; landscaping and other products; and contaminated soils. Similarly, operation of the improvement project has the potential to affect water quality. Potential pollutant sources associated with operation of this alternative include motor vehicles, highway maintenance, illegal dumping, spills, and landscaping care. Alternative 2 would temporarily disturb 131.8 acres, and Alternative 3 would temporarily disturb 142.8 acres.

It is anticipated that construction of the proposed project would affect downstream water bodies. Construction of the project and the increase in runoff would potentially cause or contribute to an alteration in water quality and have the potential to affect the beneficial use of the water bodies within the project limits; however, with minimization measures, short-term and long-term water quality impacts associated with the improvement project would not substantially impair the activities, features, and/or attributes that qualify Culverdale Wilderness Park for protection under Section 4(f).

#### **A.5.4 Jeffrey Open Space Trail**

##### ***Alternative 1 (No Build)***

Because there are no proposed improvements under Alternative 1, the use of Jeffrey Open Space Trail would not occur as a result of this alternative.

##### ***Build Alternative 2 (Preferred Alternative) and Build Alternative 3***

###### ***Direct Use***

Alternatives 2 and 3 would not require any permanent acquisition from this resource. No land from this resource would be permanently incorporated into the project through partial acquisition. No permanent project features would be constructed that would modify or otherwise permanently alter the trail; therefore, there would be no direct use of Jeffrey Open Space Trail.

###### ***Temporary Use***

Although the trail has 0.82 mile within the study area for this project (including the 0.5-mile buffer), it travels over I-405 for approximately 0.07 mile and would not be

affected by the project during either construction or operation; therefore, there would be no temporary use of Jeffrey Open Space Trail.

### *Temporary Occupancy*

There is no potential for temporary occupancy of Jeffrey Open Space Trail. This resource is not within the project construction footprint; therefore, a temporary occupancy does not apply.

### *Constructive Use*

Alternatives 2 and 3 would not result in constructive use of Jeffrey Open Space Trail. An indirect impact would be considered a constructive use under Section 4(f) if the impact were so severe that the public did not have access to the park or the bike path. Indirect uses related to the build alternatives are discussed below.

**Accessibility.** Access to and parking for Jeffrey Open Space Trail would be maintained at all times during construction and operation of Alternatives 2 and 3; therefore, indirect impacts to accessibility would not occur.

**Visual.** Alternatives 2 and 3 would not result in any indirect visual changes. Direct visual changes would not occur because the resource is not within the project construction footprint.

**Air Quality and Noise.** Indirect air quality and noise impacts are not expected to result in a constructive use of Jeffrey Open Space Trail. The trail is currently subject to indirect air quality and noise impacts due to its proximity to the existing I-405 mainline and its location in a built-out suburban environment. The incremental increase in noise and air quality impacts during construction, and operation, would not inhibit existing recreational functions of the trail that are already subject to noise and air quality associated with I-405.

**Vibration.** Vibration impacts because of the improvement project would not result in a constructive use of Jeffrey Open Space Trail. Vibration generated by construction equipment can result in varying degrees of ground vibration, depending on the equipment. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance from the piece of construction equipment. These impacts would be short term and would not inhibit recreational use of the trail during construction. During operation, ground-borne vibration impacts are not anticipated beyond the impacts currently experienced because of vehicles traveling through the study area; therefore, there would be no vibration



impacts on Jeffrey Open Space Trail that would result in a Section 4(f) constructive use.

**Vegetation and Wildlife.** Jeffrey Open Space Trail is located in a built-out suburban area. The following vegetation types and other areas occur in the project BSA: sagebrush scrub; revegetation scrub; annual grassland; ruderal; coastal freshwater marsh; riparian herb; southern willow scrub; mulefat scrub; southern black willow forest; perennial rivers and streams; flood control channel; developed; parks and ornamental plantings; sycamore plantings; oak plantings; and cleared or graded. Most of the BSA is surrounded by urbanization, which constrains wildlife movement opportunities to the open space along San Diego Creek – North, San Diego Creek – South, and the adjacent Quail Hill Open Space.

**Water Quality.** Construction of the improvement project has the potential to affect water quality. Potential pollutant sources from the building phase of these alternatives include construction activities and materials expected at the project site, such as vehicle fluids; concrete and masonry products; landscaping and other products; and contaminated soils. Similarly, operation of the improvement project has the potential to affect water quality. Potential pollutant sources associated with operation of this alternative include motor vehicles, highway maintenance, illegal dumping, spills, and landscaping care. Alternative 2 would temporarily disturb 131.8 acres, and Alternative 3 would temporarily disturb 142.8 acres.

It is anticipated that construction of the proposed project would affect downstream water bodies. Construction of the project and the increase in runoff would potentially cause or contribute to an alteration in water quality and have the potential to affect the beneficial use of the water bodies within the project limits; however, with minimization measures, short-term and long-term water quality impacts associated with the improvement project would not substantially impair the activities, features, and/or attributes that qualify Jeffrey Open Space Trail for protection under Section 4(f).

#### **A.5.5 Shady Canyon Bikeway**

##### ***Alternative 1 (No Build)***

Because there are no proposed improvements under Alternative 1, the use of Shady Canyon Bikeway would not occur as a result of this alternative.

***Build Alternative 2 (Preferred Alternative) and Build Alternative 3***

***Direct Use***

Alternatives 2 and 3 would not require any permanent acquisition from this resource. No land from this resource would be permanently incorporated into the project through partial acquisition. No permanent project features would be constructed that would modify or otherwise permanently alter the bike path; therefore, there would be no direct use of Shady Canyon Bikeway.

***Temporary Use***

Even though Shady Canyon Bikeway is directly adjacent to the project build alternative alignments, there is no expected temporary use on the bike path. There are no soundwalls, TCEs, or storage and staging sites proposed on the bikeway, nor any other project features; therefore, there is no expected temporary use for this resource.

***Temporary Occupancy***

There is no potential for temporary occupancy of Shady Canyon Bikeway. This resource is not within the project construction footprint; therefore, a temporary occupancy does not apply.

***Constructive Use***

Alternatives 2 and 3 would not result in a constructive use of Shady Canyon Bikeway. An indirect impact would be considered a constructive use under Section 4(f) if the impact were so severe that the public did not have access to the bike path. Indirect uses related to the build alternatives are discussed below.

**Accessibility.** Access to and parking for Shady Canyon Bikeway would be maintained at all times during construction and operation of Alternatives 2 and 3; therefore, indirect impacts to accessibility would not occur.

**Visual.** Alternatives 2 and 3 would not result in any indirect visual changes. Direct visual changes would not occur because the resource is not within the project construction footprint.

**Air Quality and Noise.** Indirect air quality and noise impacts are not expected to result in a constructive use of Shady Canyon Bikeway. The bikeway is currently subject to indirect air quality and noise impacts due to its proximity to the existing I-405 mainline and its location in a built-out suburban environment. The incremental increase in noise and air quality impacts during construction, and operation, would not inhibit existing

recreational functions of the bikeway that are already subject to noise and air quality associated with I-405.

**Vibration.** Vibration impacts because of the improvement project would not result in a constructive use of Shady Canyon Bikeway. Vibration generated by construction equipment can result in varying degrees of ground vibration, depending on the equipment. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance from the piece of construction equipment. These impacts would be short term and would not inhibit recreational use of the bike trail during construction. During operation, ground-borne vibration impacts are not anticipated beyond the impacts currently experienced because of vehicles traveling through the study area; therefore, there would be no vibration impacts on Shady Canyon Bikeway that would result in a Section 4(f) constructive use.

**Vegetation and Wildlife.** Shady Canyon Bikeway is located in a built-out suburban area. The following vegetation types and other areas occur in the project BSA: sagebrush scrub; revegetation scrub; annual grassland; ruderal; coastal freshwater marsh; riparian herb; southern willow scrub; mulefat scrub; southern black willow forest; perennial rivers and streams; flood control channel; developed; parks and ornamental plantings; sycamore plantings; oak plantings; and cleared or graded. Most of the BSA is surrounded by urbanization, which constrains wildlife movement opportunities to the open space along San Diego Creek – North, San Diego Creek – South, and the adjacent Quail Hill Open Space.

**Water Quality.** Construction of the improvement project has the potential to affect water quality. Potential pollutant sources from the building phase of these alternatives include construction activities and materials expected at the project site, such as vehicle fluids; concrete and masonry products; landscaping and other products; and contaminated soils. Similarly, operation of the improvement project has the potential to affect water quality. Potential pollutant sources associated with operation of this alternative include motor vehicles, highway maintenance, illegal dumping, spills, and landscaping care. Alternative 2 would temporarily disturb 131.8 acres, and Alternative 3 would temporarily disturb 142.8 acres.

It is anticipated that construction of the proposed project would affect downstream water bodies. Construction of the project and the increase in runoff would potentially cause or contribute to an alteration in water quality and have the potential to affect the beneficial use of the water bodies within the project limits; however, with minimization

measures, short-term and long-term water quality impacts associated with the improvement project would not substantially impair the activities, features, and/or attributes that qualify Shady Canyon Bikeway for protection under Section 4(f).

## **A.6 Measures to Minimize Harm**

At the completion of construction, the trail segment would be restored to its original alignment and to a condition as good as or better than prior to the project. The maximum length of time in which the trail segment would be temporarily closed would be substantially less than the construction duration of the project, and a detour is proposed for each of the trail segments. The temporary detour would be part of the TMP developed during the PS&E phase of the project. Coordination of any trail closure plan would be coordinated with the City of Irvine and the County of Orange.

## **A.7 Concluding Statement**

### **A.7.1 San Diego Creek Trail**

Alternative 1, the No Build Alternative, would result in no direct, temporary, or indirect impacts to San Diego Creek Trail. Alternatives 2 and 3 would result in temporary use of San Diego Creek Trail but no direct or constructive use of the resource. Given that temporary use under Alternatives 2 and 3 would be for a short period of time during construction and detour routes have been identified that would be implemented during the closure periods, a preliminary *de minimis* impact determination is being proposed for this property.

### **A.7.2 Freeway Trail**

Alternative 1, the No Build Alternative, would result in no direct, temporary, or indirect impacts to Freeway Trail. Alternatives 2 and 3 would result in temporary use of the Freeway Trail but no direct or constructive use of the resource. Given that temporary use under Alternatives 2 and 3 would be for a short period of time during construction and detour routes have been identified that would be implemented during the closure periods, a preliminary *de minimis* impact determination is being proposed for this property.

### **A.7.3 Culverdale Wilderness Park, Jeffrey Open Space Trail, and Shady Canyon Bikeway**

Alternatives 1, 2, and 3 would not result in direct, temporary, or indirect impacts to these Section 4(f) properties.

## **A.8 Consultation with Officials with Jurisdiction**

Prior to public review of the IS/EA, coordination was conducted with the officials with jurisdiction over properties protected by Section 4(f) of the USDOT Act of 1966. A Preliminary Section 4(f) *De Minimis* Impact Finding is proposed for the following resources: (1) San Diego Creek Trail – South, (2) San Diego Creek Trail – North, and (3) Freeway Trail. The officials with jurisdiction over these protected resources are the City of Irvine and the County of Orange. Caltrans, as assigned by FHWA, mailed a Section 4(f) coordination letter to the City of Irvine on August 2, 2017, with copies to the County of Orange. Upon receipt of the letter, a meeting was requested by the City of Irvine. This meeting occurred on September 1, 2017.

Discussion during these meetings included applicability of Section 4(f) regulations to the trails; a description of the Section 4(f) property; the activities, features, or attributes that qualify the bike trails for protection under Section 4(f); an explanation for why the Section 4(f) use is considered *de minimis*; avoidance, minimization, or enhancement measures; potential temporary construction-related impacts; activities anticipated within and adjacent to the trails; construction duration; exposure of park/trail users to construction activity; and detour options.

The public was provided an opportunity to review and comment on the Preliminary Section 4(f) Impact Finding. This comment period occurred between November 14 and December 15, 2017, concurrent with public circulation of the Draft IS/EA. A written concurrence was received on February 21, 2018, from the Orange County Community Resources Department, subject to concurrence by the City of Irvine that detour(s) with specific signage in accordance with Caltrans Manual on Uniform Traffic Control Devices practices are provided in the area of the proposed trail closure(s). A written letter was received from the City of Irvine on April 13, 2018, which concurred with this *de minimis* finding.

APPENDIX A RESOURCES EVALUATED RELATIVE  
TO THE REQUIREMENTS OF SECTION 4(F)

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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

**DEPARTMENT OF TRANSPORTATION**

DISTRICT 12  
1750 EAST 4TH STREET  
SANTA ANA, CA 92705  
PHONE (657) 328-6151  
FAX (657) 328-6511  
TTY 711



*Flex your power!  
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August 2, 2017

Jaimee Bourgeois, P.E.,  
Public Works - Traffic  
City of Irvine  
P.O. Box 19575  
Irvine, CA 92623-9575

Dear Ms. Bourgeois:

**Re: San Diego Freeway (I-405) Improvement Project (I-5 to SR 55) Section 4(f) Evaluation  
Relating to San Diego Creek Trail and Freeway Trail**

The California Department of Transportation (Caltrans), as the lead agency, in coordination with the Orange County Transportation Authority (OCTA) as the funding agency, is in the process of preparing a joint Initial Study/Environmental Assessment (IS/EA) for the Interstate 405 (I-405) Improvement Project in Orange County, California, between Interstate 5 (I-5) and State Route 55 (SR 55).

Effective March 30, 2017, *Caltrans continues to assume FHWA responsibilities under NEPA, pursuant to the 23 USC 326 MOU, and the 23 USC 327 MOU, and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes.* The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

The proposed I-405 Improvement Project (I-5 to SR 55) may receive federal funding and/or discretionary approvals through the U.S. Department of Transportation (i.e. FHWA); therefore, documentation of compliance with Section 4(f) is required. The purpose of this letter is to share information from the Preliminary Section 4(f) Resource Analysis. Section 4(f) of the federal Department of Transportation Act of 1966 (49 U.S.C. § 303) declares that “[i]t is the policy of the United States government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Accordingly, a Preliminary Section 4(f) *De Minimis* Determination is proposed. The Resource Analysis identifies the Section 4(f) resources in the Study Area, describes the nature and extent of the potential effects on the property, and describes measures to minimize harm to the affected resources.

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Within the project limits, there are three sections of Class I Off Road (paved) bike trails which will be temporarily impacted by project construction. These bike trails are located within the City of Irvine's boundaries and under the County of Orange's jurisdiction, and are subject to protection under the provisions of Section 4(f). The San Diego Creek Trails (south section and north section) are located on the outer banks of the San Diego Creek. The Freeway Trail is located along the I-405 northbound lanes, outside of State right of way.

- The San Diego Creek Trail is 15 miles in length and follows San Diego Creek Channel. The bikeway provides a connection to Newport Beach to the south and the cities of Tustin and Orange to the north. It also connects residents to the Irvine Business Complex (IBC); the University of California, Irvine (UCI); local commercial centers; and other local and regional parks such as Bill Barber Community Park, Mike Ward Community Park, and Windrow Community Park. The trail also provides connection to other trails such as Jeffrey Open Space Trail, Walnut Trail, Freeway Trail, Peters Canyon Trail, and Sand Canyon Side Path. Connections between western and eastern portions of the City of Irvine are also provided and residents of the Westpark, Woodbridge, and Oak Creek neighborhoods have direct access to the San Diego Creek Trail.

Along the project corridor, San Diego Creek Trail crosses under I-405 at two locations:

- The southern crossing (at Reach 2 of San Diego Creek Channel) is located under I-405 between Irvine Center Drive and State Route 133 (SR 133) and is approximately 2.9 miles in length (see Figure 1).
- The northern crossing (at Reach 1 of the San Diego Creek Channel) is located under I-405 between Jamboree Road and Harvard Avenue and is approximately 1.2 miles in length (see Figure 2).

The bicycle trail along the creek is predominantly asphalt and has striping along most segments. It is accessible to cyclists and pedestrians and is identified as a Class I Off Road (paved) bike trail.

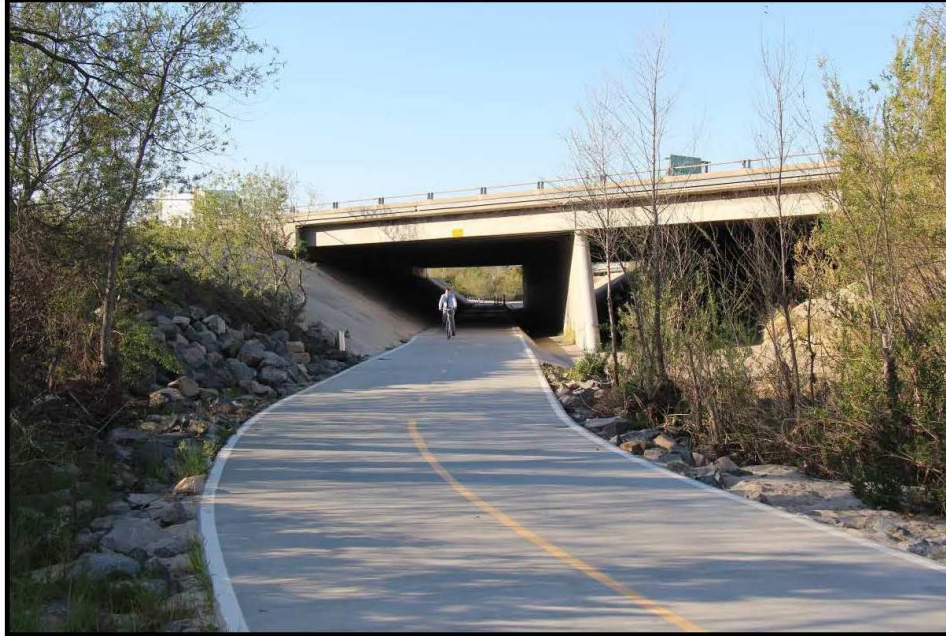
- The Freeway Trail is approximately 3.65 miles in length (see Figure 3), and is completely within the project study area. It is classified as a greenway and runs parallel to the north side of I-405 in the Southern California Edison easement, between the San Diego Creek Trail (northern crossing) and Sand Canyon Avenue. It also connects to San Diego Creek Trail and Jeffrey Open Space Trail, Sand Canyon Avenue and Alton Parkway. The trail consists of a paved bicycle and pedestrian trail. Because the trail is primarily a connector trail, there are no dedicated parking lots for it; however, it can be accessed via trailheads and by some local roads. It is accessible to cyclists and pedestrians and is identified as a Class I Off Road (paved) bike trail.

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**Figure 1: San Diego Creek Trail Southern Crossing  
(at Reach 2 of San Diego Creek Channel)**



**Figure 2: San Diego Creek Trail Northern Crossing  
(at Reach 1 of the San Diego Creek Channel)**



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**Figure 3: Freeway Trail**



Caltrans, in cooperation with the OCTA is proposing to add one or two general purpose lanes along I-405 from I-5 (Postmile [PM] 0.2 to SR 55 (PM 8.7), a distance of approximately 8.5 miles, through the cities of Costa Mesa and Irvine, and a portion of unincorporated Orange County. The project purpose is to: 1) Add mainline capacity to reduce corridor congestion and improve mobility/people throughput, 2) Improve capacity of the ramps within the project limits along the I-405 corridor, 3) Improve freeway operations, including weaving, merging and diverging, and Intelligent Transportation System (ITS) elements within the project limits along the I-405 corridor, and 4) Enhance safety.

Three Alternatives are being analyzed in the Initial Study/Environmental Assessment (IS/EA):

- Alternative 1: No Build Alternative
- Alternative 2: Add one general purpose lane
- Alternative 3: Add two general purpose lanes

Alternatives 2 and 3 would both add a single general purpose (GP) lane in the NB direction of I-405 between SR 133 and Culver Drive and a single GP lane in the southbound (SB) direction between Irvine Center Drive and University Drive/Jeffrey Road. These changes would create a fifth continuous GP lane from SR 133 to SR 55 in the northbound (NB) direction and from the Bake Parkway SB Off-Ramp (near I-5) to SR 55 in the SB direction. Alternative 3 would add an additional GP lane in the NB direction between SR 133 and Jamboree Road and in the SB direction between SR 133 and Mac Arthur Boulevard. The proposed improvements under the alternatives include mainline widening, restriping of the high occupancy vehicle lanes (HOV lanes), ramp reconstruction or widening, and construction of auxiliary lanes where required based on traffic merge, diverge, and weaving operational analysis and geometric conditions.

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***Temporary Use – San Diego Creek Trail Southern Crossing***

Under both build alternatives the San Diego Creek Bridge (Reach 1) would need to be widened to accommodate the proposed highway widening. Due to the close distance between the bridge abutment pier and the bike trail, full closure of this trail would be necessary for a duration of approximately 9 months to allow construction of the bridge foundation, pier, falsework, girder, and restoration of the bike trail, as needed, due to construction impacts. A detour is proposed beginning at the intersection of the trail and Irvine Center Drive/Research Drive, along Irvine Center Drive, Pacifica Road, and Spectrum Road where it rejoins the trail (see Figure 4).

**Figure 4: Detour for San Diego Creek Trail Southern Crossing**



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***Temporary Use - San Diego Creek Trail Northern Crossing***

Under both build alternatives the San Diego Creek Bridge (Reach 2) would need to be widened to accommodate the proposed highway widening. Due to the close distance between the southerly bridge abutment and the bike trail, full closure of this trail would be necessary for a total combined duration of less than 90 days to allow for construction of the bridge foundation, abutments, falsework, girders, and restoration of the bike trail, as needed. A detour is proposed beginning at the intersection of Harvard Avenue and Michelson Drive, proceeding along Harvard Avenue, then along Main Street until it rejoins the trail (see Figure 5).

**Figure 5: Detour for San Diego Creek Trail Northern Crossing**



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Closures to the bike trails may be necessary to protect the safety of trail users and construction workers. At the completion of construction, the trail segments at these locations would be restored to its original alignment and to a condition as good as or better than prior to the project. The maximum length of time in which the trail segments would be temporarily closed would be substantially less than the construction duration of the project as a whole and a detour is proposed for each of the trail segments. The temporary detour would be part of the Transportation Management Plan (TMP) developed during the Plans, Specifications, and Estimates (PS&E) phase of the project. Coordination of any trail closure plan would be coordinated with the City of Irvine and the County of Orange.

While the extent of project improvements is under review, it is expected that the project would result in *De Minimis* impacts to San Diego Creek Trail South, San Diego Creek Trail North and to the Freeway Trail under Section 4(f) because the activities, features and attributes of this Section 4(f) resource would not be adversely affected as discussed above. Currently, the IS/EA is scheduled for circulation to the public in late 2017. The Section 4(f) Evaluation will be included as an appendix to the IS/EA. As per FHWA and Caltrans guidelines, Caltrans will be in contact with you prior to completion of the IS/EA for your approval in order to finalize this *De Minimis* finding. Additionally, we would be available to meet prior to circulation of the IS/EA to discuss the construction activity, any additional detour options, and avoidance, minimization or enhancement of the trails.

Sincerely,

A handwritten signature in blue ink, reading "Smita Deshpande". To the left of the signature is a small blue checkmark.

SMITA DESHPANDE  
Branch Chief  
Division of Environmental Analysis

cc: Ms. Jeannie Lee, OCTA  
Ms. Alicia Raish, OC Parks/Operations/City of Irvine  
Mr. James Wootten, OC Parks – Regional Trails and Parks

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**From:** Jaimee Bourgeois [<mailto:JBourgeois@cityofirvine.org>]  
**Sent:** Thursday, August 10, 2017 10:04 AM  
**To:** 'jlee@octa.net' <[jlee@octa.net](mailto:jlee@octa.net)>  
**Cc:** Teshale, Surafael <[Surafael.Teshale@parsons.com](mailto:Surafael.Teshale@parsons.com)>  
**Subject:** I-405 Schedule and Trail Detours

Jeannie,

I have received the Caltrans letter regarding the trail closures. I am preparing a memo to inform City Council of this information, as well as the proposed sound wall locations and the upcoming release of the environmental document. I would also like to provide an overall project schedule, if available. Do we know when design and right-of-way will commence? Anticipated timeframe for construction?

I also want to share that I do have some concerns regarding the trail detour routes, particularly the Irvine Center Drive interchange, as there are no dedicated bike lanes. I would like to have some follow-up discussions, whether as part of the current phase or the design phase, as appropriate, to discuss measures that could be implemented to address these deficiencies.

**Jaimee Bourgeois, P.E.**  
City Traffic Engineer  
City of Irvine | Public Works  
One Civic Center Plaza  
P.O. Box 19575, Irvine, CA 92623-9575  
Direct: 949.724.6369  
[jbourgeois@cityofirvine.org](mailto:jbourgeois@cityofirvine.org) | [www.cityofirvine.org](http://www.cityofirvine.org) [[cityofirvine.org](http://www.cityofirvine.org)]





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HELEN FRIED  
COUNTY LIBRARIAN  
OC PUBLIC LIBRARIES

Sent via email to [smita.deshpande@dot.ca.gov](mailto:smita.deshpande@dot.ca.gov) and via U.S. mail

February 21, 2018

Smita Deshpande  
Branch Chief, Division of Environmental Analysis  
Department of Transportation, District 12  
1750 East 4<sup>th</sup> Street, Suite 100  
Santa Ana, CA 92705

**Re: San Diego Freeway (I-405) Improvement Project (I-5 to SR 55)  
San Diego Creek Trail Preliminary Section 4(f) De Minimis  
Determination**

Dear Smita:

Thank you for your letter dated December 13, 2017 requesting OC Parks' approval of a *De Minimis* finding for the above-referenced project.

OC Parks does not object to the requested finding, subject to the following:

- City of Irvine concurrence, as the City maintains this segment of the San Diego Creek trail under an MOU with OC Parks and has access rights thereto.
- In the area of the proposed trail closure(s), provide a detour(s) with specific signage in accordance with MUTCD practices.

Please note also that Alicia Raish, included as a cc: on your letter, has retired from service with OC Parks.

Thank you for the opportunity to comment on this request, and please contact me at 949/585-6446 if you have questions or would like to discuss further.

Best regards,

Eric E. Hull, AICP  
Entitlement Manager

c: James Wooten, Regional Trails  
Scott Thomas, Planning & Design



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City of Irvine, One Civic Center Plaza, P.O. Box 19575, Irvine, California 92623-9575 (949) 724-6000

April 13, 2018

Smita Deshpande  
Branch Chief, Division of Environmental Analysis  
Department of Transportation, District 12  
1750 East 4th Street, Suite 100  
Santa Ana, CA 92705

**Re: San Diego Freeway (I-405) Improvement Project (I-5 to SR 55) City of Irvine  
Concurrence with De Minimis Impact Relating to San Diego Creek Trail and Freeway  
Trail**

Dear Ms. Deshpande:

The City of Irvine appreciates the opportunity to participate in the Section 4(f) concurrence process. The City understands that the California Department of Transportation (Caltrans) District 12 in cooperation with the Orange County Transportation Authority (OCTA) is proposing to improve I-405 from I-5 to SR-55.

Caltrans has determined that the de minimis finding is appropriate and would be maintained with regards to the potential impacts to San Diego Creek Trail – Southern Crossing, San Diego Creek Trail – Northern Crossing, and Freeway Trail on the activities, features, and attributes that qualify these resources eligible for protection under Section 4(f).

Although the length of the anticipated trail closures are not recommended by the City, the operational and safety benefits of the I-405 Improvement Project by reducing traffic levels on city streets are recognized. Because the completion of the I-405 Improvement Project requires these temporary closures, the City of Irvine respectfully requests that every effort be made to minimize the length of time of each trail closure, as the bikeways within Irvine are an important component of the City's transportation network and the County's Regional Trail System.

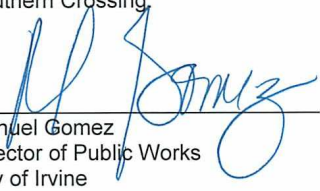
My signature below represents the City's concurrence of the de minimis finding by Caltrans that the I-405 Improvement Project will not adversely affect the activities, features, and attributes that qualify the San Diego Creek Trail – Southern Crossing, San Diego Creek Trail – Northern Crossing, and Freeway Trail for protection under Section 4(f). The use of the Section 4(f) resource during construction of the widening project, together with the 4(f) impact avoidance, minimization, and/or mitigation measures discussed in Section 2.1.1.3 of the draft IS/EA and incorporated into the I-405 Improvement Project, does not adversely affect the activities, features, and attributes that

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San Diego Freeway (I-405) Improvement Project (I-5 to SR 55)  
April 13, 2018  
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qualify the above mentioned 4f resources for protection under Section 4(f). We also understand that the public was afforded the opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resources.

The signature below is conditioned upon the Section 4(f) impacts and avoidance, minimization, and/or mitigation measures as previously referenced and implementation of striping and signage modifications to allow for Class II bike lanes along the Irvine Center Drive detour route proposed during the nine-month closure of the San Diego Creek Trail Southern Crossing.

  
\_\_\_\_\_  
Manuel Gomez  
Director of Public Works  
City of Irvine  
1 Civic Center Plaza  
Irvine, CA 92623-9575

4-13-2018  
Date

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

**DEPARTMENT OF TRANSPORTATION**

DISTRICT 12  
1750 EAST 4<sup>TH</sup> STREET, SUITE 100  
SANTA ANA, CA 92705  
PHONE (657) 328-6000  
FAX (657) 328-6522  
TTY 711  
www.dot.ca.gov/d12



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a California Way of Life.*

December 13, 2017

Scott Thomas, Design Manager  
OC Parks  
County of Orange  
13042 Old Myford Road  
Irvine, California 92602

Dear Mr. Thomas:

**Re: San Diego Freeway (I-405) Improvement Project (I-5 to SR 55) San Diego Creek Trail  
Preliminary Section 4(f) De Minimis Determination**

The California Department of Transportation (Caltrans), as the lead agency, in coordination with the Orange County Transportation Authority (OCTA) as the funding agency, has prepared a joint Initial Study/Environmental Assessment (IS/EA) for the Interstate 405 (I-405) Improvement Project in Orange County, California, between Interstate 5 (I-5) and State Route 55 (SR 55). Currently, the IS/EA is being circulated for public review.

Effective March 30, 2017, *Caltrans continues to assume FHWA responsibilities under NEPA, pursuant to the 23 USC 326 MOU, and the 23 USC 327 MOU, and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes.* The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

The proposed I-405 Improvement Project (I-5 to SR 55) may receive federal funding and/or discretionary approvals through the U.S. Department of Transportation (i.e. FHWA); therefore, documentation of compliance with Section 4(f) is required. The purpose of this letter is to share information from the Preliminary Section 4(f) Resource Analysis. Section 4(f) of the federal Department of Transportation Act of 1966 (49 U.S.C. § 303) declares that "[i]t is the policy of the United States government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

The Resource Analysis identifies the Section 4(f) resources in the Study Area, describes the nature and extent of the potential effects on the property, and describes measures to minimize harm to the affected resources. An analysis of resources evaluated subject to Section 4(f) of the Department of Transportation Act is included as Appendix A to the IS/EA.



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Within the project limits, there are two sections of Class I Off Road (paved) bike trails within County of Orange right-of way which will be temporarily impacted by project construction and are subject to protection under the provisions of Section 4(f). The San Diego Creek Trails (south section and north section) are located on the outer banks of the San Diego Creek. The south section is maintained by the City of Irvine, the north section is maintained by the County of Orange.

The San Diego Creek Trail is 15 miles in length and follows San Diego Creek Channel. The bikeway provides a connection to Newport Beach to the south and the cities of Tustin and Orange to the north. It also connects residents to the Irvine Business Complex (IBC); the University of California, Irvine (UCI); local commercial centers; and other local and regional parks such as Bill Barber Community Park, Mike Ward Community Park, and Windrow Community Park. The trail also provides connection to other trails such as Jeffrey Open Space Trail, Walnut Trail, Freeway Trail, Peters Canyon Trail, and Sand Canyon Side Path. Connections between western and eastern portions of the City of Irvine are also provided and residents of the Westpark, Woodbridge, and Oak Creek neighborhoods have direct access to the San Diego Creek Trail.

Along the project corridor, San Diego Creek Trail crosses under I-405 at two locations (two sections):

- The southern crossing, within County of Orange Right-of-Way and maintained by the City of Irvine (at Reach 2 of San Diego Creek Channel), is located under I-405 between Irvine Center Drive and State Route 133 (SR 133) and is approximately 2.9 miles in length (see Figure 1). City of Irvine
- The northern crossing, within County of Orange Right-of-Way and maintained by the County of Orange (at Reach 1 of the San Diego Creek Channel) is located under I-405 between Jamboree Road and Harvard Avenue and is approximately 1.2 miles in length (see Figure 2). County of Orange

The bicycle trail along the creek is predominantly asphalt and has striping along most segments. It is accessible to cyclists and pedestrians and is identified as a Class I Off Road (paved) bike trail.

The Freeway Trail (third section) is located along the I-405 northbound lanes, outside of State right of way and in an area owned and maintained by the City of Irvine and is not discussed further in this correspondence.

Caltrans, in cooperation with the OCTA is proposing to add one or two general purpose lanes along I-405 from I-5 (Postmile [PM] 0.2 to SR 55 (PM 8.7), a distance of approximately 8.5 miles, through the cities of Costa Mesa and Irvine, and a portion of unincorporated Orange County. The project purpose is to: 1) Add mainline capacity to reduce corridor congestion and improve mobility/people throughput, 2) Improve capacity of the ramps within the project limits along the I-405 corridor, 3) Improve freeway operations, including weaving, merging and diverging, and Intelligent Transportation System (ITS) elements within the project limits along the I-405 corridor, and 4) Enhance safety.

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Figure 1: San Diego Creek Trail Southern Crossing  
(at Reach 2 of San Diego Creek Channel)



Figure 2: San Diego Creek Trail Northern Crossing  
(at Reach 1 of the San Diego Creek Channel)



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Three Alternatives are being analyzed in the Initial Study/Environmental Assessment (IS/EA):

- Alternative 1: No Build Alternative
- Alternative 2: Add one general purpose lane
- Alternative 3: Add two general purpose lanes

Alternatives 2 and 3 would both add a single general purpose (GP) lane in the NB direction of I-405 between SR 133 and Culver Drive and a single GP lane in the southbound (SB) direction between Irvine Center Drive and University Drive/Jeffrey Road. These changes would create a fifth continuous GP lane from SR 133 to SR 55 in the northbound (NB) direction and from the Bake Parkway SB Off-Ramp (near I-5) to SR 55 in the SB direction. Alternative 3 would add an additional GP lane in the NB direction between SR 133 and Jamboree Road and in the SB direction between SR 133 and Mac Arthur Boulevard. The proposed improvements under the alternatives include mainline widening, restriping of the high occupancy vehicle lanes (HOV lanes), ramp reconstruction or widening, and construction of auxiliary lanes where required based on traffic merge, diverge, and weaving operational analysis and geometric conditions.

*Temporary Use – San Diego Creek Trail Southern Crossing*

Under both build alternatives the San Diego Creek Bridge (Reach 1) would need to be widened to accommodate the proposed highway widening. Due to the close distance between the bridge abutment pier and the bike trail, full closure of this trail would be necessary for a duration of approximately 9 months to allow construction of the bridge foundation, pier, falsework, girder, and restoration of the bike trail, as needed, due to construction impacts. A detour is proposed beginning at the intersection of the trail and Irvine Center Drive/Research Drive, along Irvine Center Drive, Pacifica Road, and Spectrum Road where it rejoins the trail (see Figure 3).

*Temporary Use - San Diego Creek Trail Northern Crossing*

Under both build alternatives the San Diego Creek Bridge (Reach 2) would need to be widened to accommodate the proposed highway widening. Due to the close distance between the southerly bridge abutment and the bike trail, full closure of this trail would be necessary for a total combined duration of less than 90 days to allow for construction of the bridge foundation, abutments, falsework, girders, and restoration of the bike trail, as needed. A detour is proposed beginning at the intersection of Harvard Avenue and Michelson Drive, proceeding along Harvard Avenue, then along Main Street until it rejoins the trail (see Figure 4).

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Under both build alternatives the San Diego Creek Bridge (Reach 2) would need to be widened to accommodate the proposed highway widening. Due to the close distance between the southerly bridge abutment and the bike trail, full closure of this trail would be necessary for a total combined duration of less than 90 days to allow for construction of the bridge foundation, abutments, falsework, girders, and restoration of the bike trail, as needed. A detour is proposed beginning at the intersection of Harvard Avenue and Michelson Drive, proceeding along Harvard Avenue, then along Main Street until it rejoins the trail (see Figure 4).



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Figure 3: Detour for San Diego Creek Trail Southern Crossing



Figure 4: Detour for San Diego Creek Trail Northern Crossing




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Closures to the bike trails may be necessary to protect the safety of trail users and construction workers. At the completion of construction, the trail segments at these locations would be restored to its original alignment and to a condition as good as or better than prior to the project. The maximum length of time in which the trail segments would be temporarily closed would be substantially less than the construction duration of the project as a whole and a detour is proposed for each of the trail segments. The temporary detour would be part of the Transportation Management Plan (TMP) developed during the Plans, Specifications, and Estimates (PS&E) phase of the project. Coordination of any trail closure plan would be coordinated with the City of Irvine and the County of Orange.

While the extent of project improvements is under review, it is expected that the project would result in *De Minimis* impacts to San Diego Creek Trail South and San Diego Creek Trail North under Section 4(f) because the activities, features and attributes of this Section 4(f) resource would not be adversely affected as discussed above. As per FHWA and Caltrans guidelines, Caltrans sent correspondence to the City of Irvine, with a copy to the County of Orange, on August 2, 2017, prior to public circulation of the environmental document. A letter was sent to Ms. Jaimee Bourgeois, City of Irvine - Public Works, with copies to Ms. Alicia Raish or Mr. James Wootten, County of Orange - OC Parks. As a follow-up to this correspondence, we are also contacting you for your approval in order to finalize this *De Minimis* finding. We would be available to meet prior to discuss the construction activity, any additional detour options, and avoidance, minimization or enhancement of the trails.

Sincerely,



Scott Shelley Esq.

SMITA DESHPANDE  
Branch Chief  
Division of Environmental Analysis

cc: Ms. Jeannie Lee, OCTA  
Ms. Jaimee Bourgeois, P.E., City of Irvine, Public Works - Traffic  
Ms. Alicia Raish, OC Parks/Operations/City of Irvine  
Mr. James Wootten, OC Parks - Regional Trails and Parks

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## **A.9 Section 6(f) Resources**

Section 6(f)(3) of the Land and Water Conservation Fund (LWCF) Act (16 U.S.C. Section 4601-4) contains provisions to protect federal investments in park and recreational resources and the quality of those resources. State and local governments often obtain grants through the LWCF Act to acquire or make improvements to parks and recreational areas. Section 6(f) of the LWCF Act prohibits the conversion of property acquired or developed with LWCF grants to a nonrecreational purpose without approval of DOI's National Park Service. Section 6(f) further directs DOI to assure that replacement lands of equal value, location, and usefulness are provided as conditions to such conversions. Consequently, where conversion of Section 6(f) lands is proposed for highway projects, replacements will be necessary.

To determine whether LWCF funds were involved in the acquisition or improvement of Section 4(f) resources, State Parks staff and database records of all LWCF-funded parks within Orange County were consulted to determine properties pursuant to Section 6(f).<sup>1</sup> Park authorities with jurisdiction will be consulted to confirm Section 6(f) status.

This research revealed that LWCF funds were utilized for improvements at only one site within 0.5 mile of the proposed project: William R. Mason Regional Park in the city of Irvine. No conversion of William R. Mason Regional Park is proposed under any of the build alternatives; therefore, there are no project-related impacts to Section 6(f) resources.

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<sup>1</sup> Provided by Cristelle Erickson of California State Parks Grand and Local Services. The report is dated December 2, 2015.